



**The
theoretical man
knows *why*. The
practical man
knows *how*. The
man who would
lead must know
why and how.**

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Accountancy *and* Business Management

A General Reference Work on

BOOKKEEPING, ACCOUNTING, AUDITING, COMMERCIAL LAW, BUSINESS
ORGANIZATION, FACTORY ORGANIZATION, BUSINESS MANAGEMENT,
BANKING, ADVERTISING, SELLING, OFFICE AND FACTORY
RECORDS, COST KEEPING, SYSTEMATIZING, ETC.

Prepared by a Corps of

AUDITORS, ACCOUNTANTS, ATTORNEYS, AND SPECIALISTS IN BUSINESS
METHODS AND MANAGEMENT

Illustrated with over Fifteen Hundred Engravings

SEVEN VOLUMES

CHICAGO
AMERICAN TECHNICAL SOCIETY
1921

40655

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Pubs. 27.80 - 1922
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Foreword

WITH the unprecedented increase in our commercial activities has come a demand for better business methods. Methods which were adequate for the business of a less active commercial era have given way to more elaborate systems and countless labor-saving ideas in keeping with the financial and industrial progress of the world.

❧ Out of this progress has risen a new literature—the literature of business. But with the rapid advancement in the science of business its literature can scarcely be said to have kept pace, at least, not to the same extent as in other sciences and professions. Much excellent material dealing with special phases of business activity has been prepared, but this is so scattered that the student desiring to acquire a comprehensive business library has found himself confronted by serious difficulties. He has been obliged, to a great extent, to make his selections blindly, resulting in many duplications of material without securing needed information on important phases of the subject, except at the sacrifice of much time and patience.

❧ In the belief that a demand exists for a library which shall embrace the best practice in all branches of business—from buying to selling, from simple bookkeeping to the administration of the financial affairs of a great corporation—these volumes have been prepared. Prepared primarily for home study, the authors have striven for simplicity and directness of style and have used a large number of practical problems to further illuminate the text. In addition to the purely accounting and management phases, the newly developed subject of Income Tax has received adequate treatment.

¶ Editors and writers have been selected because of their familiarity with, and experience in handling various subjects pertaining to Commerce, Accountancy, and Business Administration. Writers with practical business experience have received preference over those with theoretical training; practicability has been considered of greater importance than literary excellence.

¶ These volumes are offered with the confident expectation that they will prove of great value to the trained man who desires to become conversant with phases of business practice with which he is unfamiliar, and to those holding advanced clerical and managerial positions.

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BUSINESS ORGANIZATION AND CONTROL

FACTORS INFLUENCING PRODUCTION

1. **Statement of Problems.** By the term *business* we understand any line of activity in which one busies himself or to which one devotes himself. By the terms *business organization and control* we understand that organization and that control which makes the business efficient for the purposes of its existence, whether for work or play; for profit; or for mere satisfaction of having the thing done right.

In this article we shall confine ourselves to a consideration of the personnel of commercial and industrial establishments, more particularly the relation between employers and employees. Whatever the business—whether large or small, and whether meeting a demand for necessities of life or catering to the whims and follies of the social set—any business, if it is to be successful and permanent, must do two things: it must meet the changing demands of its patrons by changes in the style or character of its output; and it must be above the average in economical use of the factors of production.

Land, Labor, and Capital. The factors of production are commonly said to be land, labor, and capital. If by land, we mean no more than a place on which to stand, that is, room and opportunity; and, by capital, a certain control over the land, material, and instruments of production, the analysis may be fairly acceptable. But labor is the factor, which standing in its room and place and using the instruments which capital supplies, fashions, and combines and transports the materials in such ways as yield form and time and place utilities—the real wealth of the world.

2. **Management vs. Administration.** The problem of efficient production resolves itself, therefore, other things being equal, into the question of *how to get the most from labor*. Two antagonistic

theories are at once presented—management and administration. By the former, the laborer is the tool, or instrument—an additional hand only—of the capitalist. Under such a regime, as experience proves, the capitalist tends more and more, as his enterprise prospers, to become not only more independent but also more aloof and arrogant and exacting, until, not infrequently, he looks upon the workers as inferiors with only such rights as he deems fit to allow. By the latter, the laborer is a fellow worker investing his capital—strength and skill—in like manner and for the same purpose as the employer invests his capital—money and time—with a view to bettering his position through the acquisition of an increased fund of enjoyable utilities. It is slave driver and slaves versus leader and co-worker. Which combination will get the most from labor? Which is the real *business* method of organization and control?

Results of Slave-Driving Methods. There are still many employers of men who take advantage of time study and other scientific management methods to increase production without increasing wages. These men would gladly apply the old slave-driving methods without limit if there were no laws designed to protect employes against oppression and misrule. Such men have no concern for the welfare of their employes, but only for the economic advantage to be gained from their labor. Their point of view, however, is one sided, and, in the long run, is destructive of their purpose. Taking an attitude of superiority toward their employes, such employers get little consideration in return; and each party beats the other at every opportunity. Mutual distrust prevails; the workmen *cannot* do their best; and the labor turnover is necessarily high. Employes who might be efficient and reliable workers, are in constant fear of dismissal, and employers are in constant fear of strikes. Under such conditions efficiency in production is impossible. Taking industry as a whole—good and bad methods of control lumped together—the output of the average worker at the present time, according to good authority, “is not one-third of what it should be and can be without any increased tax on the body or brain of the operative.”* And William R. Bassett, in his recent book, “When the Workman Helps,” maintains that the driving method does not develop above

* Going: “Industrial Engineering,” page 45.

fifty per cent of the worker's capacity. The product is also inferior in quality. Employes suffer loss of wages. Employers suffer loss of profit. Society suffers loss of consumable goods, and, because of the restricted production, pays an unnecessarily high price for the goods which it does secure.

Measure of Wages. A new order is demanded. Society, the State, has a right to require and ultimately will require that wasteful and disturbing methods shall be abandoned, and that the interests of society as a whole, shall not be subject to either the interest or the will of a few.

"The first step in any wage consideration, and the first step toward the new idea in business, is to get the real value on wages. We all know that cheap labor is not cheap; paid cotton pickers have proved cheaper than slaves—although it took a long time so to convince the South, because it never reckoned the expense of idle slaves. In any operation in which the material costs are high as compared with the labor costs, the highest possible pay is the cheapest, if it results in a saving of material, or in a finer product, or in both. In the grades of production where labor is the big factor, then high wages are economical if the wastes of human power can be cut to a minimum. *Wages are measured solely in terms of production.*"

Mutual Profit in Trade. "Reason and common sense are growing more powerful year by year, and the more enlightened common sense becomes, the more it will see that we must let those with whom we deal prosper, if we are to prosper ourselves." The same idea underlies the common saying that if one is to maintain a successful business of any sort, he must give his customers "their money's worth." One successful manufacturer even goes so far as to decline to sell his products, except to those who are in position to use those products with profit,* thus recognizing the principle that to oversell a customer is to make him a dissatisfied customer, and, therefore, to lose him. Painfully, but no less certainly, the commercial world has come to a recognition of the truth that real prosperity is a product of mutual advantage. "Progressive sellers make it their business to see that their buyers make money out of what they buy—they try to make certain

*Schulze: "American Office," page 114.

that there will be a mutuality of benefit, even if there cannot be a mutuality of interest."

Wages Measured by Production. "Wage methods have not caught up with merchandising, and they will not until the old ideas of master and servant are abandoned, and business is considered as democratic, mutual enterprise."* As the success of a trading business depends upon giving money's worth, so the success of any business, from the standpoint of its dealings with labor, depends upon "making their work pleasant and profitable to them."

Employer and Employee Both Seek Gain. There is no good reason why the man who offers service for sale should not enjoy at least as much favor from, and be as much under the protection of, the State as the man who offers goods for sale. Yet nothing is more apparent than that most of the laws are made and administered with an eye, first of all, to the interest of the capitalist class. Measures directly in behalf of the workmen are adopted, not from a sense of justice and right, but rather from a recognition of the fact that the demands of the workmen can no longer be ignored. No worth while workman wishes to continue always a workman of the same class. The workman is a human being and like every other normal man, desires to improve his condition. His business is no more an end in itself than is that of the man who employs him. It is "a means to an end—a means for making a livelihood, a field of wholesome activity and a school for the development of character and mental vigor." Misled rather than helped by the lavish display of wealth and veneer of culture and refinement on the part of those who could and should set him a good example, he frequently goes wrong and "spends his money for that which is not bread, and his labor for that which satisfieth not." But his purpose is right; and, even under existing unjust conditions, he is showing a greater capacity to rise than his employers show to keep from falling. Nor are laborers, even of the lowest classes, opposed to the accumulation of wealth. Nothing is more deeply rooted in their own disposition than a desire to enjoy such accumulations for themselves, and if they sometimes seek to reduce all to their own

* Bassett in "When the Workman Helps," page 57.

level, it is but the natural reaction, from a sense of injustice in being deprived of their rightful share in the products of industry.

Need for Free Market. The seller of goods and the seller of service have each a right to the benefits of a free market; but there can be no free market where the State favors one class more than the other or where fraud, or misrepresentation, or the taking of undue advantage prevail. Herein lies the gist of the labor problem—the nut which society must crack. The man, who, through faith in the representations of a dealer, buys worthless mining stock as gilt-edged security, cut glass for diamonds, or a cotton for an all-wool suit, is no more defrauded than is the man who accepts employment in a factory or mine at a stipulated wage rate, and then, as soon as he has attained some degree of skill in his work and is able to earn a competence at that particular employment, and, by consequence, is correspondingly unfitted to undertake a different line of work, has his wage rate cut, because, as the employer too often puts it, “he is earning too much money.” Again, he may be set to work in a dangerous occupation without adequate preparatory instruction. And the man who lures another into a place of danger, and then exacts an exorbitant sum as the price of saving his life, is no more guilty of undue influence than the capitalist who deliberately misleads workmen touching the market demands for labor and withholds productive operations until the workmen, having exhausted their small store of accumulated wealth, are ready to accept a starvation rate.

Effects of Improved Machinery. The installing of improved machinery is almost invariably in more or less expectation that thereby labor may be dispensed with, or, at least, that, by means of the machine, cheap labor may be substituted for the more expensive labor. And *time and motion* studies hardly look beyond increasing the effectiveness of labor, and thereby *enabling* the employer to pay higher wages; but, as in the case of a protective tariff, which *enables* the manufacturer to pay higher wages, they *make no provision that the higher wages shall be paid*. The logical result is that the lion’s share of the benefit goes into the pockets of the employer class.

Flat Wage Rate. The average workman prefers to do his best at any employment, and would do so if he could be satisfied that

his doing so would not be made an occasion for cutting his wage rate or of putting him in some other way under a handicap in his efforts to better his condition. Nor is he predisposed toward a flat rate for all employes in a given occupation, regardless of work done. The flat rate is not a product of unionism, but the means by which employers have called unionism into existence. Either because of inability to determine the individual worth of workers, or because of indifference in their respective rights, employers have chosen to buy labor in the mass according to an estimate of the worth of the average workman. They have declined to do justice as between the individual employes and trade unionism, for under the flat rate which workmen have been therefore obliged to accept or fail of employment, the only chance which the efficient workman has of securing an increase in his own wage, is by inducing his fellow workmen to unite in demands for an increase to all. "All too tardily employers are coming to recognize that a laborer is a "human being" and that it is money out of pocket to consider labor as a collection of individuals who can be hired and fired, jumbled together, or otherwise treated much the same as low-grade, non-perishable merchandise."

Laborers Are Citizens. Not only is the laborer a human being with a human being's hopes and aspirations, but, usually at any rate, he is a citizen of the country in which he lives and works—a member of the same social organization to which the employer belongs—and both morally and legally entitled to recognition as such. He resents, alike, disdain and fraternalism. He does not want to have his affairs ordered for him; that is a sacrifice of independence, and the result is harmful no matter how good an employer's intentions may be. There should be no confusion of charity and business, and there need be none.

"If we take medical inspection and clean, safe shops as simply good business, both from the standpoint of compensation laws and of production, they are welcomed by the men. Increased educational facilities and the like are also welcomed, although it is an open question whether, except for special training, efforts in this direction are not better made with the whole community, rather than the company, in view. But the 'taking an interest' kind of welfare, the welfare work that presupposes that the laboring

man is a fallen animal and should be uplifted, is everywhere productive of more harm than good.”*

CO-OPERATION

3. Laborers and Capitalists Are Associates. Labor and material are the two factors of production with which the employer has immediately to do. They are not alike, neither can they be treated successfully as if they were alike. Labor is not a factor of production in the sense that it enters into and forms a part of the finished product as flour, yeast, water, salt, form bread, but is only the force which combines, moves, and assembles materials as may be desired; and the workman is as truly a patron of the producing establishment and should have the same interest in its success as the man who buys its finished product. He is in no sense a partner in the business. His interest is rather that of a farmer in the mill which buys his wheat, or the packing house which buys his hogs and cattle. He knows that his prosperity depends upon the prosperity of his employer, and employers should know, and not only should, but under penalty of losing all their holdings, must recognize that their own prosperity depends upon the prosperity of the laborer, and not upon his degradation.

Limits of Management. The manager of an establishment requiring labor and materials may determine what commodity shall be produced and in what quantity, and may determine the number and character of workmen to be employed in that behalf, but here, with respect to the workmen, his functions as manager must largely cease, for workmen are not machines, however near they may be trained to act like machines, and they decline to be slaves. In his subsequent relations with them, another type of executive ability is called for. As the management has learned to defer to the wants of those who *take* its finished products, so it must learn to defer to the wants of those who *make* those products. This is administration—literally a ministering to—and not management, which orders and directs and leaves no choice but to obey. As Bassett says, “It is in serving the worker and the public that capital finds its greatest and most enduring profits.” Again, “and it is becoming more and more apparent that the owner must prove that he

* Bassett in “When the Workmen Help.”

has a right to ownership by demonstrating that men working with him are better off than in individual enterprise."

Service Is Real Basis of Profits. The employer must learn to serve his employes as he serves his other patrons. This service is not rendered by paying the lowest possible wage and, when the employe rebels because of the injustice, degrading him in his own estimation by the bestowal of gifts, either in the form of bonuses or of so-called share of profits, but by paying him in a straightforward and manly way the earnings which are his. The giving of a bonus or the raising of wages after a strike is begun, is indisputable proof that the workmen have not been paid what they earned. "Strikes never raise wages," but they do sometimes secure for the workmen what rightfully belonged to them and what should have been given them before the strike was called. "It is only the inefficient manufacturer who bewails the size of his payroll. The efficient employer should pray for wages so high that his less efficient competitor will go out of business."

"When a man works for himself, the only limit to his remuneration is his ability." The wage earner is working for himself, and the only limit to his rightful remuneration is his earnings. No man is competent to set a limit to wages until he has demonstrated his ability to determine the productive capacity of the workman. "Wages are high if they do not return value; they are low, regardless of their total expression in dollars, if they do return value."

Workmen must be paid wages more in proportion to their contribution to product and they must be accorded recognition as members of the social organization for industrial purposes; they must have "more opportunity for self expression and a wider scope for creative energy—in short, greater comfort and cultural advantages." And not this only, but they must be given every opportunity for knowing and must be assisted to know, especially, that the wages paid them constitute a fair division of the produce of the industrial enterprise.

Industrial Undertakings not Private Business. Mr. W. L. George, a radical labor agitator, is right when he says: "It is no use settling strikes by tricking us Our increases must come off profit." The labor element will not always submit to being tricked and every move of that sort only delays the final

reckoning. Anyone who undertakes deliberately to fool a normally intelligent class of workers, in the long run, fools no one but himself. Increases in wages "must" come off profit." This is not saying that increases must come out of the earnings of capital alone, but out of the earnings of industry as a whole. The workmen want their share. That share can be determined only from an intelligent consideration of the amount of profit and a full understanding of the conditions under which it is acquired. Abundant instances show that, even with being constantly in close touch with the activities of their particular establishments and assisted by expert help, employers frequently do not know the profits—do not know whether they are producing profits or losses. How, then, shall the workmen know unless they have at least an equal opportunity? But shall the workmen have access to "the books" and permission to know the inner workings of the business? Certainly. It was so in the days before the era of machine industry and was good alike for the employer and for the employee. Their interests have not changed, but the means of intercommunication have been clogged and prejudices and antipathies, born of ignorance of each others rights and needs, have been developed. Let the workmen have their representatives on the boards of directors and subordinate governing bodies and let them, *through agents of their own choosing*, investigate and learn the true condition of the business in which they are the associates of their employers. And in proportion as this is done, the workers will acquire both an active and a real interest in the business and the danger of strikes will disappear. This is not opening one's private affairs to the scrutiny of unfriendly eyes. The capital which one devotes to business enterprise and for the handling of which he solicits the co-operation of any group of workers is no longer a private but, as to those associates at any rate, becomes a matter of public concern. This method of treating labor troubles is as superior to investigations by committees of arbitration after a strike or lockout has begun as the cleaning up of mosquito-breeding swamps is to the doctoring of yellow-fever patients and for the same reason, namely, because it checks the difficulty at its source.

4. **Looking Ahead.** *Reasons for Losses.* But we have been assuming all the way that industrial operations always yield a

profit. This is by no means true, and even when true, it does not follow that the workman is entitled to an increased wage, for the unusual profit may be "due solely to exceptional managerial skill," in which case, "it is capital and not labor that is entitled to the reward." Again, "the worker may, by his lack of diligence, produce an article the cost of which is so high that it cannot well be sold at a profit." Or, "on the other hand, the worker may deliver to capital a good article at a fair price and then capital may, by stupidity of management, forfeit the profit." Or, yet again the productive scheme may be so poorly planned, or so incompetently managed; or the article produced be so little in demand that marketing at a profit is impossible. But such possibilities, far from doing away with the need for full understanding between the employer and his employes, only accentuate its necessity.

Measure of Highest Efficiency. Every workman has, at any time, a certain capacity for productive work. That capacity can be increased by education and training; made stagnant by continued application to routine work; or utterly dissipated through idleness or profitless enterprise. For every workman, too, there is a rate of work and day's length which yields the maximum return. A lower rate, or shorter day fails to get the best return for that day; a higher rate or longer day leads to damaged product and consequent loss. And what is true in this respect for one day's work, is true also for a week, a month, a year, and for the span of life; and the length of day and rate of work which will get the most from labor varies with the productive period, the term of employment, and the character of work to be done. One may conceivably do good work in some line, through twenty-four consecutive hours; but, it must be self evident that he cannot keep this up. For like reason, the most effective working day of the man occupied in close mental application is likely to be shorter than that of one working with his hands. The laws of efficiency and economy and justice alike require that the conditions under which men work shall be conducive of the greatest effort without harm to the worker; that every worker shall do the best he can without encroaching upon his capacity for work; and that each worker shall be paid according to results produced.

The tenant who takes a farm for one year only, has no interest in its productiveness for another year, and, therefore, too often encroaches upon its productive capacity—in legal parlance, commits waste. It is paying interest out of principal. In like manner employers, hiring men for short periods only, regardless of the future like one-year tenants, not infrequently encroach upon the productive capacity of their workmen—commit waste—and thus despoil both the worker and the State. This is especially true in the case of women and children employes, and the resulting economic loss to the State is many times in excess of the immediate profit to the employer. Every person has a natural right and duty to make the most of himself which his capacities will allow, and it is both the right and the duty of the State to provide protection against the stunting or destruction of that capacity—in other words, to prevent waste. If we would become a really prosperous people, we must become an efficient people. To this end, two things are especially needful: *organization*, which affords opportunity for co-operative effort and consequent differentiation of function together with high development of skill and education in special lines; and *effective administration*, which so deals with employes as to get the most and best from labor—considered, not from the narrow viewpoint of an employer's interest for a day or other short period, but from the viewpoint of society and the workman's own best interest for his life period.

Higher Ideals. "A man's mind has two channels, one through which flows thoughts connected with the daily routine of living and attending to ordinary affairs of life and business. In the other and higher channel are thoughts concerning the possibility of greater usefulness and larger opportunities." This double-mindedness is common alike to the employer and to the employe, and before either can work to best advantage in the more routine matters, some measure of opportunity must be afforded for the realization of the hopes and aspirations aroused by the higher thinking. This clearly means prosperity for the employes no less than for the employers. Their real interests are reciprocal and neither can permanently prosper at the expense of the other.

"The broad-minded business man can see that a *greater amount of profit* can be derived from intelligently directed and interested

human machines, than can be derived from any system in which a group of human beings is considered merely as a mass.

"The idea of practical economy makes it necessary that there should be no waste in the act of any employes. The greatest possible amount of service should be obtained from the laborer. By putting him in a position wherein he can measure the value of his interested service in definite terms of money, he will not only create a larger wage for himself, but he will at the same time work a corresponding increase in the revenue to the manufacturer. This is not merely theoretical sociology; it is practical business economy.

"Believe me, these essentials of business character are possessed by living men who have demonstrated that they are workable, practical principles."*

EXECUTIVE ORGANIZATION

5. Differentiation of Functions. In the following pages, we present analyses of typical business establishments, showing the commonly recognized relationship between the different classes of workers for purposes of management and administrative control—it is the executive organization. The larger establishments are chosen not because the functions and control indicated are peculiar to large establishments, but because it is only in the larger establishments that the several functions are fully differentiated and clearly discernible. Being thus separately set out, the characteristic features can be more readily recognized and studied and their usefulness determined. It should be comparatively easy, thereafter, to discover these features in the smaller establishments with which the student, presumably, is more acquainted and to learn to introduce and to use them as occasion may require. But it must be remembered, always, that an organization is static while administration which is carried on through it, is dynamic and ever changing. Administration is a matter of intellect, and intellect, though it may sometimes be dormant, is never static for even when dormant it is moving relatively backward and losing its hold on the things that are worth while. It is the business of the executive officer of any establishment, or of any depart-

*Stockwell: "Essential Elements of Business Character," page 76.

ment of it, to learn the requirements of the various positions to which workers must be assigned; to find the workers best fitted to perform the duties of such positions; and to keep them *willingly* at the top notch of endeavor.*

General Characteristics. To reduce the subject to concrete form, the important objects of business organization may be defined as follows:

- (A) To unite the individuals who are to conduct an enterprise into a body which will work systematically to a common end.
- (B) To bring together or group the component parts of the body with respect to their specific relations and duties.
- (C) To elect officers and appoint committees and authorities with clearly defined duties and responsibilities.

These definitions all lead to a common center, that is, co-operation. Without co-operation the success of any organization is very questionable, if not impossible. With it—a body of men all working together for a common end—almost any apparent obstacle will be surmounted. No matter how large an organization may be, how many or wide its ramifications, if the spirit of co-operation prevails, this same spirit will have such an effect upon the work of the executive, sales, and production department, that it will move as one irresistible body.

And, regardless of the size or nature of a business enterprise, the organization, as here used, resolves itself into certain easily distinguished components, as follows:

First: The owners, represented in a corporation by the stockholders or investing public; in a partnership, by the partners; in an individual business, by the proprietor.

Second: The executive or managerial division.

Third: The commercial or active business division.

Fourth: The manufacturing or productive division.

These components lend themselves naturally to certain specific subdivisions; depending, of course, upon the size of the organization; natural groups are formed to insure efficient management; certain authorities are delegated to effect economical operation and production.

The stockholders (owners) first elect from among their number, a *board of directors*. This is the initial step toward perfecting a business organization. The directors represent the stockholders,

* Stockwell: "Essential Elements of Business Character," page 14.

and the interest of the stockholder, as such, becomes that of an investor only. His interest in the operation of the business is to be looked after by the directors, whom he, or a majority, has elected.

From this board of directors is built the framework of the executive or managerial division. The first act of the directors is to meet and elect the usual executive officers: *President*, *Vice-President*, *Secretary*, and *Treasurer*. In modern organizations, it is customary to also elect or appoint an *executive committee* or *board of managers*.

This committee consists of three or more members, usually selected from the officers, to which may be added one or more directors who are not officers.

To this committee, the board of directors delegates its authority in the actual conduct of the business. This plan of electing an executive committee is particularly desirable when the board is a large one, as it concentrates authority and results in more prompt action on matters demanding immediate attention. A large body is unwieldy, a quorum cannot always be brought together on short notice, but a working majority of a small committee can be convened promptly.

The executive committee takes charge of both the commercial and manufacturing divisions. To still further concentrate authority, it is customary to appoint a *General Manager* who has direct supervision over the immediate operation of both commercial and manufacturing divisions. He is appointed sometimes by the executive committee, but more often by the board of directors.

The general manager, while occupying a position of chief acting executive, acts with the executive committee and is directly responsible to the board of directors.

The commercial division of a business naturally sub-divides into two sections: *Accounting*, and *Advertising and Sales*. The first thought of the student might be that accounting is given a position of too great importance, but in the sense here used it means the records of the business of every nature, the accounts, the gathering and recording of statistics and information of every character.

The manufacturing division divides into *Purchasing and Stores*, and *Production*. In a measure, the purchasing of goods is a function of the commercial division, but the purchasing of raw material and supplies is properly under the supervision of the manufacturing division.

CHARTING THE ORGANIZATION

6. What may be termed the anatomy of an industrial body, is most graphically shown by means of charts. Free use of charts will be made throughout these papers. With properly designed charts the logical divisions of authority or expense can be clearly shown.

Fig. 1 furnishes a graphic illustration of the principal components of the organization under discussion. In the first group we find the owners (stockholders) whose line of communication with the business is through the board of directors. Subordinate to the board of directors are its own executive officers, the executive committee, and general manager.

The connecting lines show the executive committee to be in direct communication with the board of directors, while the general manager is in direct communication with both the executive committee and the board of directors.

Under the general manager are the commercial and manufacturing divisions, over both of which he has direct supervision.

7. **Working Authorities in Large Enterprises.** The next logical step in the development of our organization is a study of the working authorities and responsibilities of the different officers and their assistants. We have seen that the administrative authority is for practical purposes centered in the general manager. It is not to be supposed, however, that in a large industrial organization he will personally supervise all of the details of operation of the commercial and manufacturing divisions. His time must not be taken up with details which can be as well handled by subordinates. He should be free to devote his time to questions of policy, the providing of finances, the consideration of new fields of endeavor, and the making of the more important contracts. His immediate assistants will be a *Comptroller* and a *Superintendent*.

The comptroller fills a position identical with that of a business manager or an assistant manager. His duties are mainly in connection with the commercial division. It is his business to devise systems of accounts and systems for recording the activities of every department, and have reports compiled, in proper form for presentation to the general manager. His is a statistical department, filling a place between the general manager and the subordinate depart-

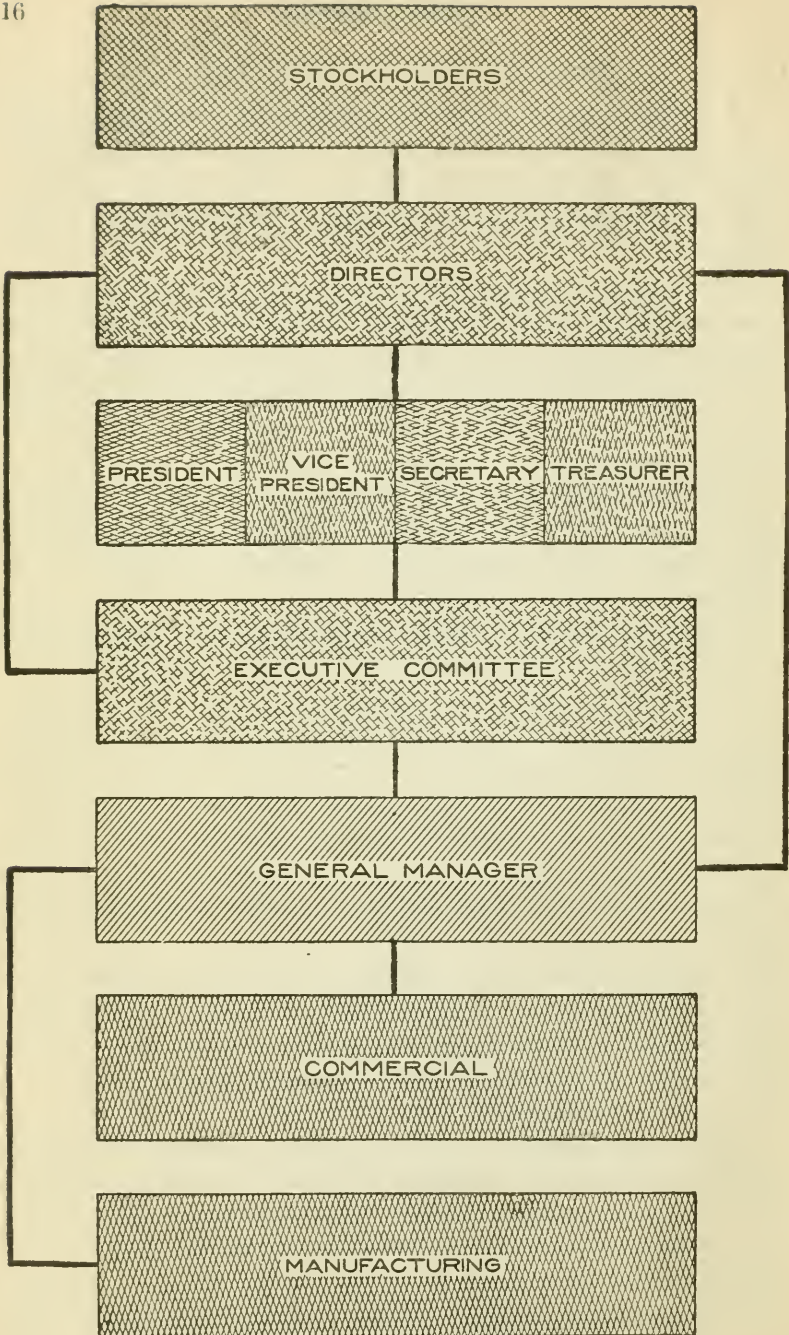


Fig. 1. Chart of a Corporate Manufacturing Enterprise

ments, and, while not closing the avenues of communication between these departments and the general manager, it is here that reports and records of results are concentrated.

The superintendent is in immediate charge of manufacturing operations and is responsible for the custody of all property used in manufacturing. His position does not close the avenue of communication between factory departments and the general manager.

Fig. 2 illustrates the subdivisions of the commercial and manufacturing branches. This chart does not go back of the administrative section of the organization, as the stockholders have no direct connection with the actual operation of the business.

We find the subdivisions of the commercial branch in charge of the following: *Chief Accountant*, with direct supervision over all bookkeeping and accounting records; *Chief Stenographer*, in charge of all stenographic and circularizing work; *Advertising and Sales Managers*, in charge of publicity and selling campaigns; *Credit man*, in charge of credits and collections.

The manufacturing department includes the *Purchasing Agent*, who purchases all manufacturing stores, materials, and supplies; *Chief Stores clerk*, in charge of the storage of all materials and supplies; *Chief Engineer*, who designs new products, new machinery for the manufacture of that product, and conducts all experimental work; *Chief Draftsman*, who superintends the work of the drafting rooms; *Assistant Superintendent*, in charge of maintenance of power and heating plants, internal transportation facilities, machinery and buildings; *Foremen*, in charge of shops employed in production work.

As shown by the lines of communication, represented by the heavy lines, the authorities of the comptroller and superintendent extend to every phase of the work of the commercial and manufacturing branches. The comptroller is in communication with the manufacturing branch since the making of schedules, time keeping, and the assembling of cost statistics are all centered in his office. He does not, however, assume any of the duties of the superintendent, and while their work is closely related, the two officers conduct their departments without conflict of authorities. It must be remembered that they are equally responsible to the general manager, which of itself requires cordial coöperation.

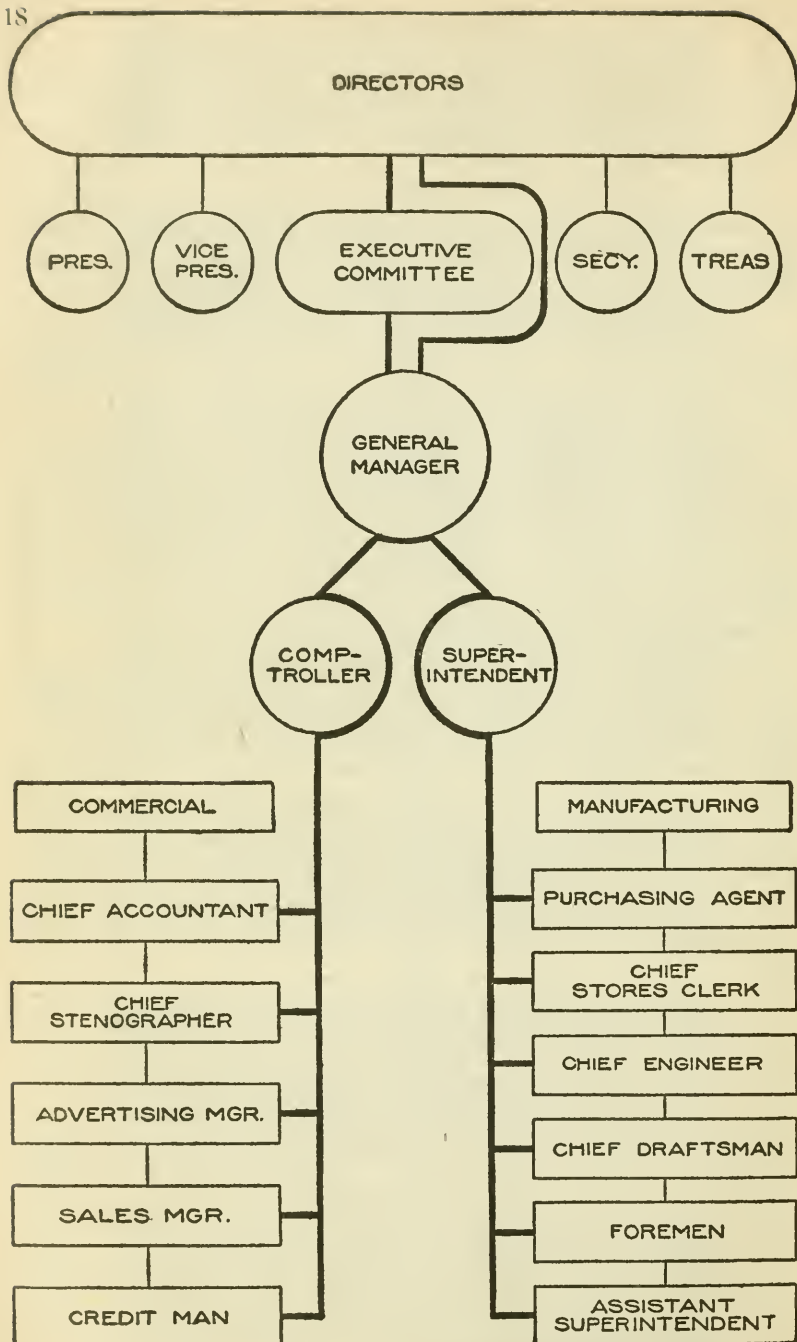


Fig. 2. A Chart of Working Authorities in a Manufacturing Business

8. Organization Applied to Small Business. We have referred only to large manufacturing enterprises divided into many departments, necessitating a division of executive duties among a large number of minor executives. While, in the organization of a smaller enterprise, not all of these department heads will be required, the principles of organization, so far as division of authority is concerned, remain the same.

In the small corporation, we find the same board of directors elected by the stockholders. This board may be small, consisting of no more than five, or even three members, but the same executive officers are elected. One man may hold more than one office, as secretary and treasurer, or vice-president and treasurer, yet each office is filled. If the board is small the executive committee may be omitted, in which case the board itself performs the duties of the executive committee. There is the same general manager; at least the duties exist even though there be no such office in name. The president may act as the executive head, and be recognized as the actual manager of the business, but in so doing he is acting in an entirely different capacity than that pertaining to the office of president.

Extending the illustration to a small manufacturing enterprise, the general manager may assume all of the duties of the comptroller in the operation of the commercial branch; he may be his own sales manager or credit man; or in the manufacturing branch, he may act as superintendent.

The treasurer of the corporation may be the accountant and also act as credit man. The advertising and sales managers may be one, or the superintendent may be the purchasing agent as well.

The point intended to be emphasized is that there are certain duties to be performed, certain responsibilities to be met, certain authorities to be assumed even though it be but a one-man business. And in this is illustrated the importance of creating any business organization without regard to individuals.

9. Organization of Mercantile Business. Leaving for a time the organization of a manufacturing enterprise, we will consider the application of the principles of organization to a trading business. In such a business, the administrative section remains the same: stockholders, directors, officers, executive committee, general manager. At this point the business naturally divides into the departments of *buying* and *selling*.

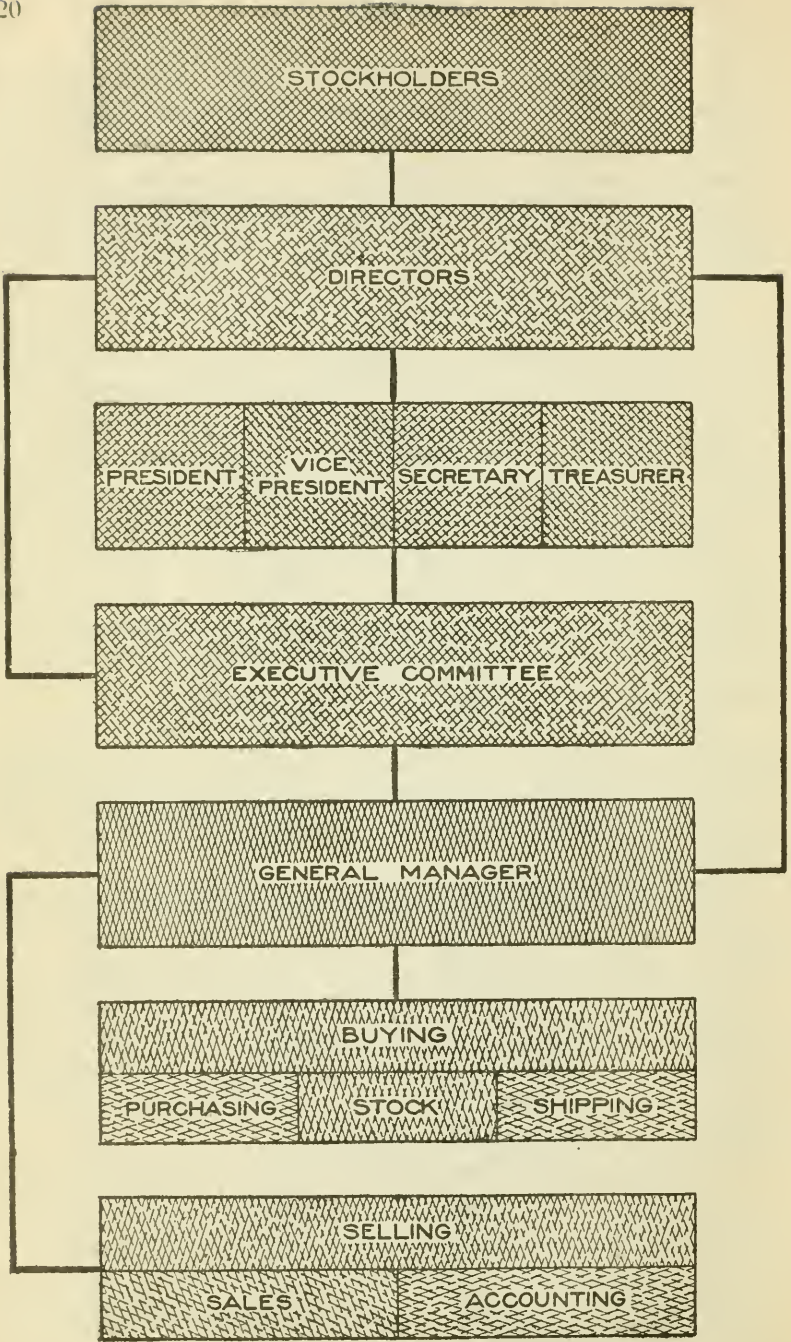


Fig. 3. A Chart of a Corporate Trading Enterprise

The buying department is subdivided into *purchasing*, *stock*, and *shipping*. The subdivisions of the sales department are *sales* and *accounting*. Our chart of the organization shown in Fig. 3, follows the same lines as Fig. 1, the only change being in the main divisions.

Advancing the next step we find the executive officers in charge of the several divisions of the work, corresponding very closely to those shown in Fig. 2. The buying department is in charge of the *Purchasing Agent*, *Chief Stock Clerk*, and *Shipping Clerk*, or *Traffic Manager*, as he is sometimes known.

The selling department is in charge of the *Chief Accountant*, *Advertising Manager*, *Sales Manager*, and *Credit Man*. This is shown clearly in the chart, Fig. 4.

Lest an erroneous impression be gained, it may be well to state at this point that the advertising and sales managers must work in perfect harmony. Indeed, advertising is one branch of the sales department and the success of one is so closely interwoven with the other that no important step should be taken by either independently.

In many large concerns, the sales manager is the real advertising manager, even though another may supervise the actual routine of preparing advertising matter. A competent advertising man makes a successful sales manager, and every sales manager should have advertising training, for the purpose of advertising is to create a demand and assist in making sales.

Referring again to Fig. 4, it is seen that both buying and selling departments are under the control of the general manager, from whom direct lines of communication lead to every division of these departments. Direct communication is also maintained between the two departments. The accounting division keeps the accounts of the buying department; the sales division must be in communication with the purchasing and stock division in respect to maintaining the stock to be sold, and with the shipping division in respect to the filling of orders.

10. Universal Application of Organization Principles. When we go into all of the ramifications of business we find many establishments where minor variations of our plan of organization appear necessary, but in the final analysis, the fundamentals prove to be the same.

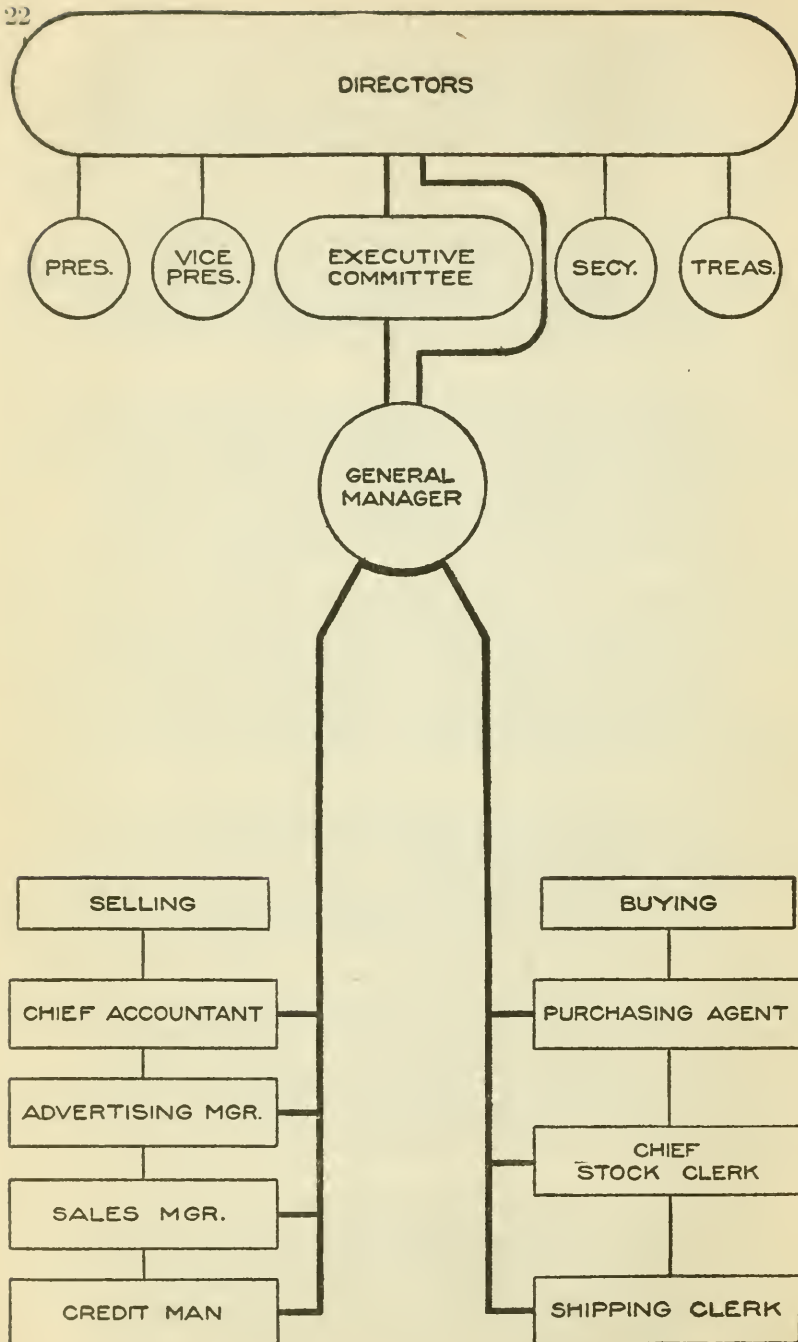


Fig. 4. Chart of Working Authorities in a Trading Business

Reduced to its simplest form, we will suppose the business under consideration to be a small retail establishment conducted by two partners. No thought has been given to the principles of organization, yet they are applied in that little store just as surely as in the immense manufacturing plant.

Ask any commercial salesman calling on the firm who is the man to see regarding the introduction of a new line of goods, and he will probably answer, "Mr. Jones is the man to see; he does the buying." With no thought of organization, the owners of this little business realize that it is best for one man to do the buying. Perhaps the other may inspect samples, his opinion may be asked, he may even place an occasional order, but it is not the rule of the establishment. By placing the buying in the hands of one partner, confusion is avoided. He can keep in closer touch with prices, and the results are far more satisfactory.

Advancing to the larger retail business of the department store, whether the general store of the small town or the big store of the city, we find a different problem. Here the buying is further specialized, for one man buys for one, or at most three or four departments. The same men act as sales managers and buyers in the departments for which they are responsible. The manager of a department in a big store is selected as much for his ability as a buyer as for his salesmanship. But we do not get away from fundamental principles, for in buying and selling the manager is performing two entirely separate and distinct functions.

No matter what the business, we find the same two fundamental functions, that is, buying and selling. As illustrations of the application of this principle to different businesses we give the following:

Publishers of newspapers and other periodicals buy editorial work, manuscript, engraving, paper, printing; sell subscriptions, advertising space.

Publishers of books buy editorial work, manuscript, engraving, paper, printing; sell books.

Railroad companies buy equipment, rails, lumber, coal, supplies, labor; sell freight and passenger transportation.

Schools and colleges buy textbooks, supplies, services of instructors; sell instruction.

Professional men buy their instruction, books, instruments, office furnishings, clerical assistance; sell their services.

In every undertaking, revenues are produced through salesmanship. Every business and every profession has something to sell.

and its financial success depends largely upon the quality of salesmanship employed. Whether it be a professional man with nothing but his services to sell and no other means of advertising than through work well done, or a gigantic commercial organization with its extensive advertising campaign and many salesmen, a selling organization exists in some form. And before anything can be sold it must be procured, or bought.

On this question of the universal application of the principles of organization, we quote from a valuable contribution in *The Engineering Magazine*, by C. E. Knoeppel:

"While business as it is now conducted is not as simple as it was in the barter days, it must not be inferred that this segregation of authority is synonymous with complexity, for its very purpose has been to simplify, and that is what it has accomplished. It is only where this segregation has been the result of lack of thought and proper attention, or other like causes, that we find a complex and unsatisfactory condition of affairs. In fact, there is all about us sufficient evidence that many commercial enterprises are being conducted along lines that, as far as evolutionary development is concerned, are several stages behind the times

"Let us suppose a case, which will apply in a greater or less degree to the majority. In the earlier development, we will say that the founder of the business was able, on account of its small size, to make what sketches he needed, solicit orders, see that they were filled, perhaps take a hand at the making if occasion required, see to the shipments, and attend to the collections and the keeping of his few accounts. He finds that the business grows, and eventually places a man in charge of certain branches while he looks after others. The accounts eventually require more attention than he can give them so he engages a bookkeeper in order that he may be relieved of the work. He finds that the quantity of materials received and shipped amount to enough to warrant a receiving clerk as well as a shipping clerk, and, to handle this material from its inception to shipment he conceives the idea of placing a man in charge as stock clerk. He then adds a purchasing agent, in order that he may be relieved of the detail and that purchases may be made most economically; a man is placed in charge of the orders; foremen are placed in charge of certain men in the shops; the details connected with making plans, drawings, estimates, etc., are taken over by a practical man; his manager is given a man to look after the shops or engineering branch; while the commercial branch with its many details is placed in the hands of another. As the evolution continues, the selling branch is assumed by one man; cost details are looked after by another; a chief inspector is added in order that all work may be shipped according to specifications; the engineer, who before had been a sort of jack of all trades, is placed in charge of certain work, while an electrician is engaged to look after this particular work; and so this segregation continues as the development continues.

"Perhaps it is not to be wondered at that the founder, in looking backward, is inclined to pat himself on the back when, in a reminiscent mood, he

considers what he terms 'remarkable development.' He considers that he has been wonderfully successful in building up a business which at the beginning was so small as to admit of his supervising every detail, while today he employs a dozen men to do the work he once did. There is no getting away from the fact that it is this same feeling of self-satisfaction that is responsible for a large number of faulty organizations, for if we should tell this manufacturer that his business is far from being as successful as it is possible for it to be . . . he would vigorously resent any such accusation; but the fact remains that it is not the success it should be, for the very reason that the development has been allowed practically to take care of itself. New men were added, new offices created, only when absolutely necessary, each newcomer being given a general idea of what was expected of him, and not knowing, not thinking, or perhaps not having the time to give more than passing attention to the matter, the proprietor did not consider the fact that his business was a unit, with each worker a part, having a distinct relation with every other worker. Hence, as the efficiency of any organization is directly in proportion to the care with which these relations are considered and treated, his organization naturally fails to attain that degree of efficiency obtainable, and for this condition he, and he only is responsible."

11. Departmental Authorities. The next logical step in the development of our organization is an analysis of the departmental organizations. We have seen how the operations of the business are divided among several divisions or departments. The reason for such divisions is apparent. In a large business no one man can personally supervise all of its activities. Each division is engaged in certain activities that demand the immediate supervision of specialists. One man is a specialist in advertising, another in sales plans, others in purchasing, specific manufacturing operations, or the design and maintenance of appliances intended to improve the product or to reduce costs.

To reach the highest state of efficiency in every department of the business, these specialists must be employed, which is another reason for organizing a business along the line of its activities, and without respect to individuals.

Before we can decide what manner of man should be placed at the head of this or that department, we must study the duties of the position, the responsibilities involved, the authorities to be assumed. To present this problem in graphic form, the chart (Fig. 5) is designed. While the arrangement is not inconsistent with Fig. 2, this chart of the same class of organization is laid out along the lines of authority. It shows both the authority of the department head and the necessary activities of his division.

pages, this analysis is intended to exhibit these authorities in greater detail.

12. General Manager. As a rule the general manager has general supervision over the commercial and manufacturing branches. In conjunction with the president and executive committee, he formulates all policies to be followed in purchasing, manufacturing, sales, and advertising, establishing credits, and accounting methods. He is responsible to the executive committee and board of directors for procuring materials, their manufacture and sale, and the maintenance of buildings and machinery.

It is his duty to keep in touch with the operations of every department and to post himself on the general efficiency of all classes of workmen. Through reports he will keep informed in regard to the results of the operations of every department.

While in direct communication with all department and division heads, he will have for his immediate assistants, a comptroller and a superintendent. It is from the comptroller that he will receive statistics and reports of the activities of the business in all its branches, while to the superintendent he delegates his authority in the actual operation of the manufacturing branch.

13. Comptroller. "A controller or manager" is a standard definition of the term comptroller. In the organization under consideration, he is a *controller* of the business by virtue of the fact that he is responsible for the accounting and recording of all activities of the business.

He occupies the position of auditor and is the real systematizer of the business. He creates all systems of commercial accounting, cost accounting, departmental records, time keeping, and pay rolls, reports of superintendent, perpetual inventory, sales statistics, and, in fact, all records of the business. He prepares all balance sheets, comparative statements, trading, manufacturing, and profit and loss statements, and reports to the general manager or executive committee, or both, on the condition of finances, materials, and finished goods.

Since the formation of important policies may hinge on the reports and statistics of his department, he occupies an office next in importance to the general manager. The training and experience gained in his office place him in direct line for promotion to the office of general manager.

His authority is absolute over the accounting and stenographic departments, while his authority extends to other departments only in respect to their record systems. In the accounting department, his direct assistant is the chief accountant; and in the stenographic, the chief stenographer.

In a smaller organization the comptroller may not require the services of a chief accountant, in which case he performs the duties of the position. Or the treasurer may occupy the office of comptroller.

Chief Accountant. The chief accountant is in immediate charge of the commercial and factory accounting. His assistants are cashier, bookkeepers, factory accountant, cost clerks, time clerks.

This department accounts for the receipt and disbursement of all moneys and properties, figures costs and pay rolls, and prepares statistics necessary for the use of the comptroller in making up his reports and statements.

It is evident from this that the comptroller is in a sense the custodian of all property belonging to the business, since he must, through his accounting department, account for its receipt and disbursement. This explains why the comptroller prescribes all systems for the care and recording of stores, supplies, and finished product.

Chief Stenographer. The chief stenographer is at the head of the correspondence department, with authority over all stenographers, typists, filing and mailing clerks.

Stenographers are supplied to all divisions by this department. This plan of having all stenographers in one department subject to the call of those having need of their services is now adopted by most large concerns, except in a few cases where stenographers act as private secretaries to the officers. The plan is an economical one, for only the number actually required to handle the work of the establishment need be employed. Under the old plan of employing one or more stenographers in each department, it is common to find them idle in one department while in another the work is behind. Another strong point in favor of the more modern plan is that each stenographer becomes familiar with the dictation of all departments, and no stenographer has an opportunity to become familiar with the secrets of the business.

In the stenographic department, the work of addressing and mailing form letters, catalogues, and circulars is done.

All correspondence is filed by this department.

Records of office supplies, stationery and printed matter are maintained in this department.

The chief stenographer has charge of and accounts for all postage, but secures postage by requisition from the cashier or accountant.

14. Sales Division. By far the most important division of the entire commercial branch is the sales division. This division is responsible for finding a market for the output of the business.

It must create a demand for the product through advertising, open new fields, study the demands of the trade and the products of competitors, ascertain as far as may be the possibilities of marketing new products, and, above all, sell goods at a profit.

The selling division of some of the largest industrial establishments is in sole charge of a general sales manager, who has authority over the advertising as well as selling. In our chart we have divided responsibility for the conduct of this division between sales and advertising managers, placing the advertising manager on an equality with, rather than subordinate to, the sales manager. This combination will produce the most satisfactory results for most enterprises.

Advertising Manager. The advertising manager has charge of the preparation of all advertising literature, catalogues, copy and designs for all periodical advertising and usually the placing of all contracts for printing and engraving.

He has authority over all artists and copy writers employed regularly and for special work.

With the sales manager and general manager, he makes up appropriations for periodical advertising and places contracts when these appropriations have been approved.

He confers with the sales manager on all questions pertaining to his work, no printed matter for the use of the selling division being ordered until approved by the sales manager. Thus, coöperation of the sort that makes for success is assured.

Sales Manager. The sales manager has authority over the sale of goods and filling of orders, and his department is divided into selling and filling. The selling department is further subdivided into salesmen and mail orders.

One subdivision represents that portion of the sales made by personal salesmen. The active work is carried on by salesmen who call on the trade under the orders of the sales manager.

The sales manager hires all salesmen, prescribes their territories and routes, and supervises their expense accounts.

He compiles reports and statistics of their work for presentation to the comptroller or general manager, and keeps the records prescribed for this department.

The mail order division is engaged in the sale of goods by the use of letters, circulars, and catalogues. Lists of customers and prospective customers are maintained, and sales follow-up systems are operated under the immediate supervision of this division.

In the billing department, the chief order clerk is in charge of entering sales orders, making shipping orders and manufacturing orders. He maintains a record of sales and manufacturing orders so that he can keep informed on manufacturing or stock requirements. All invoicing of shipments is done in this department.

The shipping clerk maintains records of rates of transportation by rail, water, or truck, and keeps posted on routes and facilities. He supervises the packing of all goods, and secures proper receipts from transportation lines.

Credit Man. The position of the credit man is an important one in any establishment.

He collects and records information about the financial responsibility and credit standing of customers. When necessary, he makes special investigations, and on the basis of his information extends or limits credit. Every order from a new customer must be approved by the credit man before it can be accepted.

When accounts have been opened, it is the duty of the credit man to collect them when due, or, if not paid promptly, to use every means to secure a settlement. His work brings him in contact with both the sales and accounting departments.

The credit man is assisted by such clerks and collectors as may be necessary for the conduct of his department.

15. Superintendent. The superintendent is given general supervision over the manufacturing branch of the business. His authority extends directly to the engineering and drafting departments, the work of the assistant superintendent, foreman of tool room, and shop foremen. His relations with the purchasing department are advisory rather than managerial.

His immediate assistants are the chief engineer, assistant superintendent, and shop foremen.

It is his duty to execute orders for the manufacture of goods, operate the plant in the most economical manner, study and introduce processes and methods that tend to reduce manufacturing costs, and keep informed generally on the efficiency of men, machinery, appliances, and materials in all manufacturing departments.

With the assistance of the purchasing agent he provides all materials and supplies required in the manufacture of goods or for the operation of the plant.

Chief Engineer. The chief engineer designs all special machinery and appliances to be manufactured for use in the plant, designs and plans all new products for which there appears to be a demand, and personally supervises the experimental department. The installation of new equipment is also done under his supervision.

His authority extends to the drafting department which is in charge of a chief draftsman. This department draws all designs, plans of new machinery or product, and all plans not classed as architectural.

In a plant where many special tools are made, the chief engineer also has authority over the tool room.

Assistant Superintendent. The assistant superintendent is responsible for the maintenance in efficient condition of all power, pumping, heating, and lighting plants, internal transportation facilities, and the repair of buildings and equipment.

Except in the larger plants, he has authority over the tool room which is placed in charge of a tool room foreman. This department is responsible for the custody of all tools, repairs to tools, and their manufacture. Tools are issued only on requisition and perpetual inventories are maintained according to systems prescribed.

In some very large industrial plants, like a steel plant, there are several assistant superintendents, each having specific duties. There may be a superintendent of power, superintendent of transportation, superintendent of machinery, superintendent of buildings, superintendent of stores, etc. In a small plant, the superintendent will personally perform the duties here assigned to the assistant superintendent.

Shop Foremen. As the name indicates, the shop foremen are in charge of the various shops or manufacturing departments. It is the duty of the shop foreman to lay out the work called for by the

orders of the superintendent, and to assign the work to his men. He will make provision for the prompt execution of orders by making requisition for the number of men that can be profitably employed in his department. It is his duty to keep all of his men supplied with work.

16. Purchasing Agent. The purchasing agent has charge of the purchase of all materials for the manufacturing branch, and in some cases for the commercial branch. In a purely trading concern, his duties would be in connection with the commercial or selling branch, but in a large industrial enterprise, the purchase of office supplies, advertising literature, etc., is usually under the supervision of the comptroller, chief accountant or advertising manager.

He procures catalogues, price lists, names of manufacturers and dealers, and keeps generally informed as to sources of supply. He obtains samples which are submitted to tests by the engineering department or otherwise.

With the superintendent and general manager, he makes schedules of materials, secures bids, and places orders. Records of orders and all information needed in his office are kept according to the systems prescribed by the comptroller.

He has full authority over the store rooms, in which he is assisted by the chief stores clerk. This department receives all goods, checks receipts with orders or invoices, stores the goods, delivers them on properly executed requisitions, and maintains perpetual inventory records as prescribed.

EMPLOYMENT DEPARTMENT

17. A department, or rather a sub-department, not shown on the chart but found in some establishments, is the *employment department*. This department is very properly in immediate charge of the superintendent, and, in the average manufacturing plant, he will hire all men. In a plant employing a great number of men, it is impossible for the superintendent to personally take charge of this work, and an employment agent is placed in charge.

The employment agent keeps records of all employes and applicants and hires all men needed by the different foremen.

GENERAL MODIFICATIONS

18. The organization that we have described is a representative illustration of the application of the principles to a large enterprise,

necessitating a considerable number of subdivisions. But even here the charts show only what may be termed the principal divisions; the charts might be extended in greater detail. The explanation might include the exact duties of every employe in each department, but, as our purpose is to present general principles in sufficient detail to serve as a guide, explanations of these minute details have been omitted.

There are, however, modifications to be found in certain cases which may be made clear by further suggestions. We have referred to the comptroller, and while in many concerns no such office is recognized, at least by that title, some man in every business of any magnitude fills an analogous position.

Most frequently it is the auditor, or if the office of auditor has not been created, it may be the treasurer. Again, the duties or a greater part of them, may fall on the office manager or the chief accountant. Even in a small partnership where one of the partners is the bookkeeper, the duties exist, and are performed by that partner who keeps the accounts. It must be remembered that the comptroller's office is primarily statistical. It matters not whether the statistical operations involve the keeping of a simple set of books or require large commercial and factory accounting forces with a third division to compile statistics from their records, every business demands certain statistical work. Neither is it important whether the man in charge of this work be called comptroller, auditor, accountant or office manager, but we have used the title of comptroller as more exactly descriptive of the functions of the office when carried to its legitimate conclusion in a large business.

While, in most manufacturing industries, the superintendent and purchasing agent have full authority in the making of purchases for the manufacturing branch, it has been found advisable in some cases to give the comptroller authority over the purchasing department. A reason for this is the importance of reducing the investment in raw material, supplies, etc., to the lowest point consistent with the actual requirements of the business. Much needless capital is tied up in raw material, when it might be at least earning bank interest. His chief concern being to provide a liberal supply of raw materials, the superintendent is very liable to overstep the bounds in the direction of too liberal purchases.

A still different condition is found in a large merchandising establishment. Here practically every department manager is his own buyer and while he must be regarded as the best judge of what to buy, it becomes necessary to supervise his purchases in respect to quantities. The comptroller should, therefore, have authority over the amounts invested by the several buyers. This is usually controlled by giving the buyer a stated appropriation at the beginning of each season, the amount being determined by a study of present conditions and records of past performance. The making of an appropriation does not operate against special appropriations to be used in taking advantage of specially advantageous market conditions, or to increase stocks of fast selling lines.

DUTIES CLEARLY DEFINED

19. One of the first requirements in the development of a successful organization is that the duties of every employe be clearly defined, and that each employe be fully informed as to his duties. Nothing tends to produce greater friction than an overlapping of duties and authorities.

In a manufacturing plant, when a foreman is placed in charge of a shop he should be instructed as to his authority, responsibilities, and exact duties. When these authorities have once been established, no other man of equal or lower grade in the organization should be permitted to interfere in any way, nor should the foreman be permitted to overstep his authority.

Those occupying positions to which greater authorities are attached should also be careful to not presume upon their authority by attempting to direct work properly under control of the foreman. The superintendent or manager who, in passing through a plant, discovers a workman in the act of violating an established rule, or doing something dangerous to the lives of himself and fellow employes, or performing work in the wrong way, is justified in at once bringing the matter to the notice of that workman; but he should report the occurrence to the foreman at the first opportunity.

On the contrary, if the manager or superintendent wishes to make a change in policy involving a departure from the established customs of the shop, or if he requires the services of a workman even temporarily in another department, he should first take up the matter with the shop foreman.

The same policy in general should be observed throughout the organization. The person placed at the head of a department or division of the work should have full authority and be held responsible for the work of all employes in that department. Complaints of inefficiency of an individual employe should be made to the department head. If the purchasing agent, for instance, finds the work of a certain stenographer unsatisfactory, his complaint should be made to the chief stenographer.

20. Duties of Individual Workmen. The duties of the individual workman in the shop should be as clearly defined as are those of his foreman. It is the duty of the foreman to lay out the work and to keep the workman regularly employed on the work assigned to him.

In the operation of the manufacturing branch, the most important consideration is economy of production. When a workman is kept at one task he becomes a specialist, increases his production, and reduces costs.

21. Duties of Office Employes. Each clerk in the office should have his work clearly defined. If specialization is profitable in the shop, it is equally so in the office. Every man who has been responsible for the management of an office will agree with us that in no other branch of business is there a greater tendency to allow work to get behind.

Lack of system is mainly responsible for this state of affairs. While his duties may be more or less clearly defined, the work of the average office clerk does not follow any well defined plan. He does the thing that seems most important, leaving the less important tasks until he "has time." Instead of surveying the field and laying out a logical, systematic plan, the average office employe goes about his work in a haphazard sort of way following the line of least resistance.

The work in every office is largely routine, but the faithful performance of routine tasks is a necessary accompaniment to those larger tasks, which in themselves, appear of greater importance. Routine tasks are drudgery—something that every man seeks to escape. In freeing himself from a state of drudgery, the department head should be careful lest he place his subordinates in the same dreaded rut. An office clerk should be given an opportunity to learn all of the routine of the division in which he is employed. He will

GENERAL ACCOUNTING

	KIND OF WORK	GENERAL										POSTING					CASH BALANCES & PAYMENTS					COLLECTIONS					LEDGER BALANCES								
		Invoicing	Check Purchase Invoices	Write up Sales Journal	" " Invoice Register	" " Cash Book	" " Journal	Foot all Auxiliary Books	Post Sales Journal	" Cash Receipts	" Journal Debits	" " Credits	" Invoice Reg. Credits	" Cash Book Debits	" Private Ledger Items	" General	Write up Time & Pay Roll Books	Pay Factory Wages & Salaries	" Office	" Purchase Accounts	" Freight & Express	Balance Cash Book	" Bank Book	Acknowledge Remittances	Settlements & Special Credits	Notices of Notes Due	" " Accts.	Draft Notices	Write Cards for Open Accts.	Dispose of Past Due Accts.	Follow-up Attorneys Accts	Second Notices	Trial Balance Gen. Ledger	" " Sales & Pur. Led.	Balance Sheet
DAILY		C	C	B	B	B	B	C	B	B	B	B	B	B							B			C	C			C							
MON.																									C	C									
TUES.																				A						C									
WED.																																			
THUR.																																		C	
FRI.																																			
SAT.																C																			
DAYS OF THE MONTH	1																A	A																	
	2																												C						
	3																																		
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	31															B																		B	B
JAN.																																			B
APR.																																			B
JULY																																			B
OCT.																																			B
		A-CASHIER										B-BOOKKEEPER					C-CLERKS																		

Fig. 6. A Working Chart for the Guidance of the Employees in One Department

become a more valuable employe; while adding variety, the performance of more than one task is training him for a more advanced position.

To properly systematize the routine, the department head should first study his department to find out what the routine tasks really are—what work must be done each day or each week. He should then list these tasks and assign them to certain clerks to be performed at certain stated times.

This can be best presented by means of a chart as shown in Fig. 6. This chart covers the work of a typical general accounting department. At the top, the general or routine tasks are listed, grouped under proper divisions. From each task listed a line is extended to the time when it is to be performed: daily, the day of the week, day of the month, or the month. The letters at the end of the lines indicate by whom the tasks are to be performed, *C* representing clerks, *B*, bookkeepers, and *A*, cashier.

Taking the collection division as an illustration, we will suppose that it is Monday, the 2nd of the month. The chart shows that on Monday notices of notes and accounts due are to be mailed. On the second day of the month, past due accounts must be taken up and disposed of. In addition are the daily tasks as indicated by the lines extending to the daily line.

When a task is to be performed two or three times in a month, the line is broken and the letter inserted at each break. Even the time of drawing off a balance sheet, once every three months, is indicated. A similar chart should be made to show the routine duties of each department.

Such charts, supplying, as they do, complete working schedules for the routine of each department, soon reduce the time taken by routine tasks, which is of no little importance in the conduct of a well regulated department. They fill a place in office routine analogous to that of the working plan in the shop. The same idea can be carried out, and will prove equally valuable, even in an office where the bookkeeper does all of the work.

CHARTING SALARY AND WAGE DISTRIBUTION

22. We have seen how authorities, responsibilities and even routine duties are most graphically represented by means of charts—the working plans of the recording divisions of the business. For

purposes of record, the distribution of the expenditures for salaries and wages of those who make up our organization is of equal importance to the definition of the authorities and duties.

If the accounts are to be of value they must be correct, and they cannot be correct unless every item is charged to the proper account. The value of correct accounts is recognized. They do more than show what we have received or the expenditures for a specific purpose during a stated period; they show when and why an expense is increased or decreased. With such information to point the way to economies in the future, instead of records that show us merely the amount of an expense already incurred, accounting takes its rightful place as one of the most important functions of a business enterprise.

Probably more businesses have failed owing to the lack of proper accounting methods than from any one other cause. Many a business has been rejuvenated—turned from failure to success—by the introduction of a system of accounts that truthfully portrays its activities. Few business failures are the result of a failure to buy goods at right prices, or to establish selling prices that show a profit. The more usual cause is found in leaks in the expense account. Any method that locates the leaks places us in position to stop them.

The chief value of accounting records lies in the opportunity afforded for comparison. The fact that a certain expense amounted to \$900.00 last month furnishes no information of special value; but when compared with the amount expended for the same purpose two, three and four months ago (if these expenses are analyzed and compared with production or sales or whatever factor would affect the amount) the figures assume an important significance. But if expenditures are erroneously applied, if an amount has crept into an expense account that does not belong there, the comparison had better not have been made. Thus is seen the necessity of an absolutely accurate distribution.

Here the chart—the working plan—is again applied to excellent advantage. The chart, Fig. 7, applied to salary and wage distribution, shows to which of the two principal divisions each item should be charged. This is the important question—to properly apply expenses to the commercial and manufacturing branches. Subdivisions of such a chart segregating expenses of each division are easily made.

ORGANIZATION

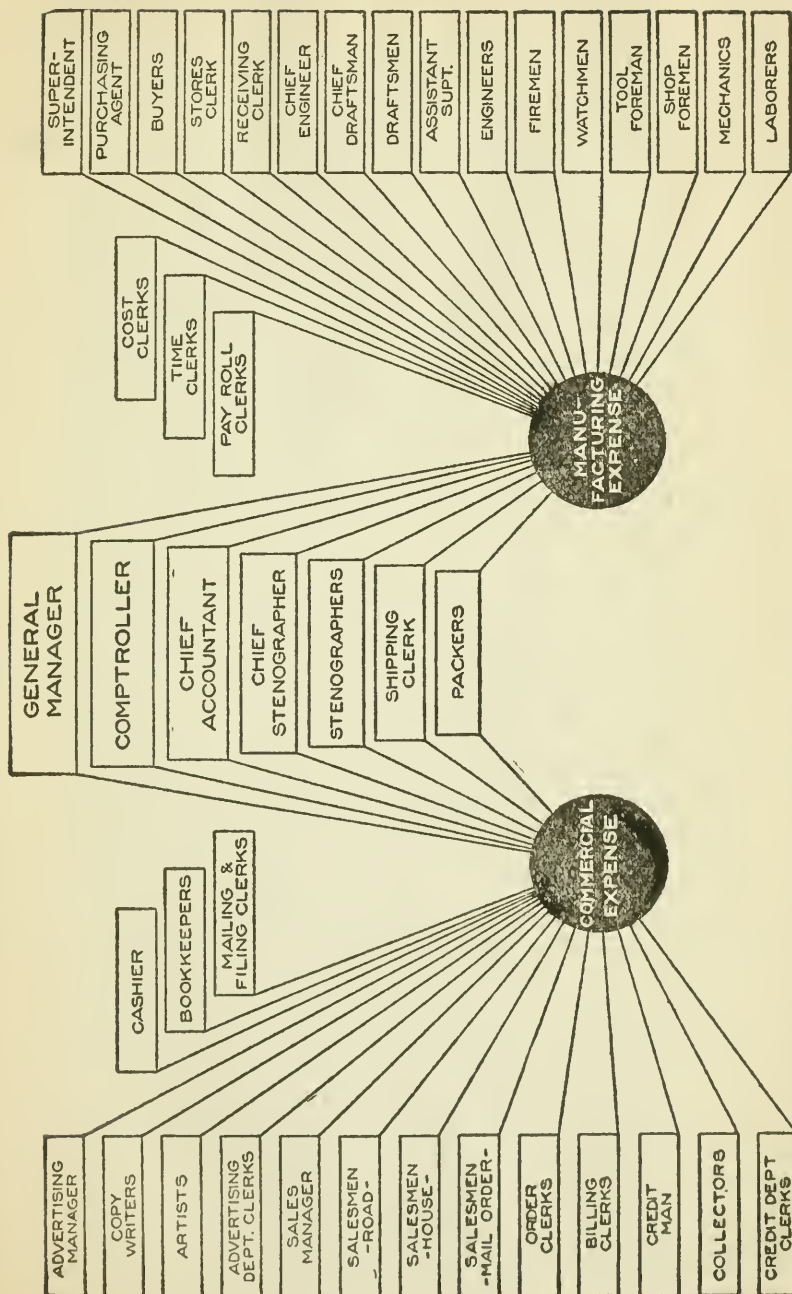


Fig. 7. This Shows How Salaries and Wages are Apportioned to the Two Principal Divisions of a Business

EXPENSE DISTRIBUTION CHART

<i>Commercial</i>	DEPT. AND DIV. HEADS	CLERKS	STENO- GRAPHERS	EXPENSE	TOTAL
EXECUTIVE					
General Mgr.					
Comptroller					
Total					
ACCOUNTING					
Chief Accountant					
Cashier					
Billing					
Total					
OFFICE EXPENSE					
Chief Stenographer					
Mailing					
Filing					
Total					
SALES EXPENSE					
Advertising Mgr.					
Copy					
Engraving					
Printing					
Advertising Space					
Sales Mgr.					
Salesmen Road					
" Mail Order					
" House					
Traveling Expense					
Postage					
Order Recording					
Packing & Shipping					
Total					
CREDITS & COLLECTIONS					
Credit Man					
Reports					
Records					
Collections					
Total					
TOTAL COMMERCIAL EXPENSE					
Forward					

Fig. 8. This Chart of Expense Distribution Shows the Amount of Executive and Ad-

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Administrative Salaries, and Expense of Every Class, and Their Correct Apportionment

The application of the items from which lines lead only to the commercial or manufacturing branch is readily understood. Between the two are several items from which lines lead to both branches, indicating that the expense is to be divided. This division should be given close study. Care must be used that too large a part of any item is not applied to either branch. The salary of the general manager, and usually the comptroller, will be equally divided. The duties of the chief accountant, chief stenographer and stenographers being chiefly in connection with the commercial branch, only a small portion of their salaries is charged to manufacturing. Shipping clerk and packers' salaries are charged to either one or the other branch, depending upon the nature of the enterprise. In a manufacturing enterprise where all goods are delivered to stock rooms ready for shipment, packing and shipping is a sales expense and is charged to the commercial branch; in a plant building heavy machinery that must be shipped from the assembling floor, this expense is usually charged to manufacturing.

EXPENSE DISTRIBUTION CHART

23. To present a graphic record of expense distribution, the chart, Fig. 8, is used. This chart separates commercial and manufacturing expense, showing amounts, while Fig. 7 shows to which branch each item belongs.

This chart subdivides commercial expense into *executive, accounting, office, sales, and credits and collections*, showing totals for each and for the entire commercial branch. Manufacturing expense is subdivided into *executive, accounting, purchasing, engineering, and shops and equipment*.

A comparison of these statements from month to month will show just what every item is and indicate the slightest increase in any class of expense. Similar charts can be readily prepared for any business, segregating expenditures of each branch, division, or department.

The distribution will naturally vary in different businesses and, before this chart can be prepared, the exact distribution must be determined. In this chart, packing and shipping is included as a commercial expense, while, as stated previously, in some businesses it would be a manufacturing expense. All such questions must be decided before the chart is prepared.

EFFECT OF PHYSICAL ARRANGEMENT

24. However efficient the personal organization, satisfactory results can be obtained only under proper environment. It is not merely a question of pleasant surroundings for employes, but a financial proposition; not a reform or a fad, but a money-making plan that governs the engineer in laying out a plant.

This is not to be a discussion of welfare work, about which much has been published. Our purpose is to point out the business economy of a proper physical arrangement of office, store or factory as against the wasteful methods of a systemless grouping of men and machinery.

The question of physical environment is a practical one that has been solved by many enterprising concerns, and the subject is deserving of careful study by the student of business organization. While some hard-headed business men may regard the question of minor importance, it is significant that the largest and most successful enterprises, financially, are those in which employes have been supplied with the most comforts, surrounded with approved safeguards, and aided in their work by the latest appliances of proved worth.

There is an old axiom to the effect that even a good workman cannot be expected to do good work with poor tools. It is equally true that he cannot be expected to do good work in either unsanitary or inconveniently arranged shops and offices.

25. Factory Plans. The planning of a manufacturing plant is a question for the engineer, rather than the accountant or business organizer, but a few general remarks on the subject will not be out of place in this paper.

It may be stated as a fundamental principle that the factory should be planned to facilitate the movement of raw material from one department to another. In the ideal factory, storage for raw material will be provided where it can be economically received and easily procured when needed in the factory. It should, if possible, be close to the department in which the material is subjected to the first operation.

The shops themselves should be arranged to facilitate the movement of partly completed parts from one department or shop to another. To illustrate, a foundry should be so located that castings can be taken direct to the machine shop, or smith shop, not through another shop or in a round-about way.

Likewise, the machine shop, if the process be continuous, should be located next to the assembling department. Or, if a "parts" store-room is maintained, it should be located between the machine shop and assembling department. Storage for completed goods should be adjacent to the assembling department, and convenient to the shipping room or platform.

The chart, Fig. 9, shows a typical layout of a manufacturing plant operating both a foundry and wood shop. Naturally the foundry and wood shop are as widely separated as possible. Storage of foundry materials is provided for just outside of the foundry, while lumber is convenient to the wood shop.

The arrows indicate the movement of raw materials through the shops to the finished goods store-room, and from thence to the shipping platform. If these lines are traced it will be seen that at no point is the material twice moved over the same ground. Each move takes it to the next operation and one step nearer completion. Where materials and parts enter a shop at two or more points, the lines are merged, showing that these materials leave that shop as one piece, part, or finished article. A feature underlying the whole plan is economy in the movement of work in process. All work moves *through* a shop, not back and forth in the shop.

The ideal conditions do not always exist, neither can they be brought about in every case. Many plants, built in the past, have been planned without due regard for these matters; their importance was not appreciated and the buildings are so located that it is impossible to secure entirely satisfactory results. However, if present conditions are studied carefully, many improvements can be brought about at slight expense. While, as we have intimated, this is a problem for engineers, a number of cases might be cited where the accountant, called in to systematize the accounting methods of a manufacturing business, has suggested physical changes in the shops that have resulted in marked reductions in costs.

26. Planning the Office. The average office is arranged in a very haphazard way. Departments are located with little regard for their departmental relations; desks are placed where they fit best rather than according to any preconceived plan.

Logical arrangement of the office has as great an influence on the economical conduct of the work as does the physical arrangement

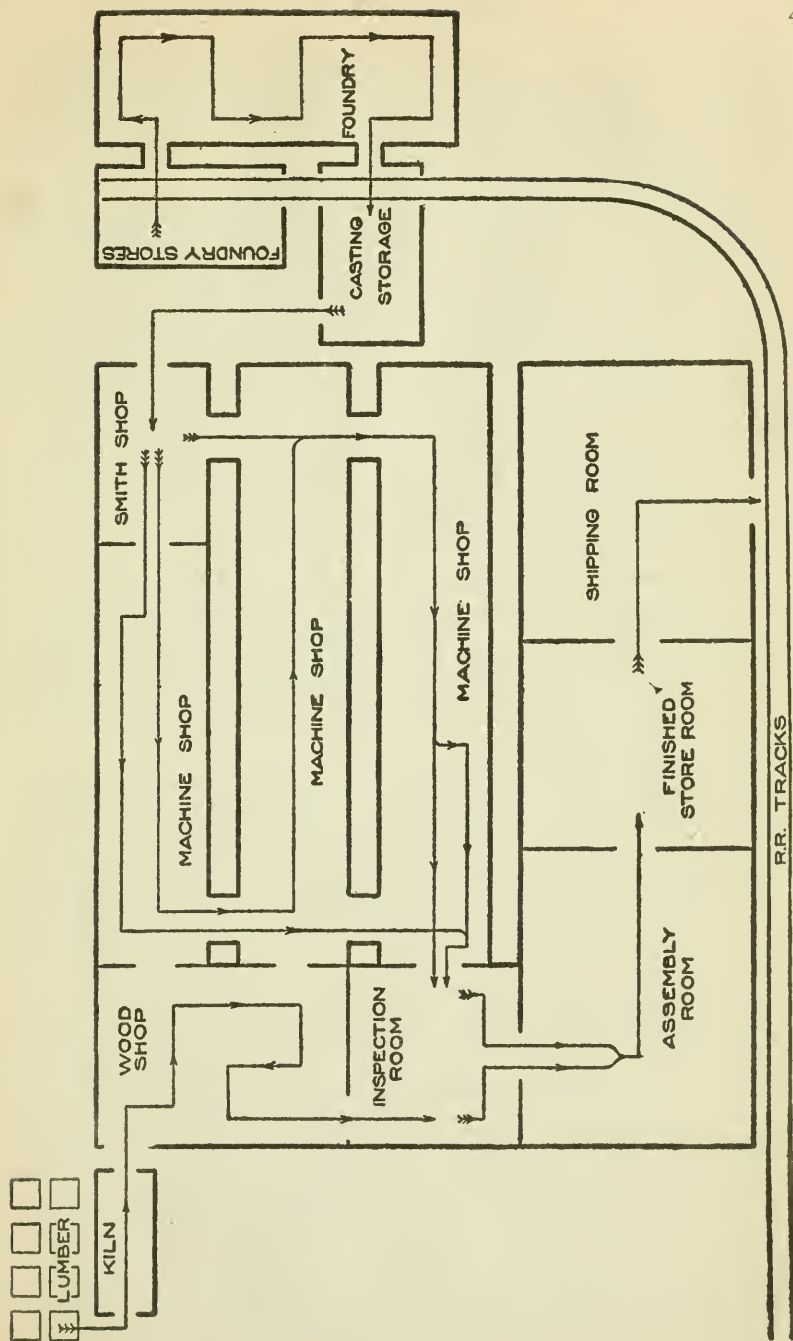


Fig. 9. Layout of a Typical Manufacturing Plant

of the shop. The most important requisite in the layout of an office is good light. While ideal conditions are impossible to attain in some buildings used for offices, much can be accomplished by placing the desks to take full advantage of the light that is available.

The writer once visited an office in which sixty or more people were employed in one big room. Most of the light came from the rear and practically all of the desks faced the light, which is recognized as most injurious to eyesight. The manager of the office was asked why the desks were not placed in proper position, and he replied that they were placed so that the employes would sit with their backs to the entrance, and not have their attention detracted from the work by visitors. He considered this an important move, but overlooked the more vital fact that his employes were not only ruining their eyesight but were actually doing less work than would have been done under more favorable conditions.

A change was consented to. As many of the desks as possible were so placed that the worker would receive the light from the left; some received it from the right and a few from the back. Three months later this manager readily admitted that his employes were turning out at least one-third more work, and their general health was greatly improved.

The location of the departments and the private offices should be carefully considered. Departments in which the work is of a nature requiring frequent inter-communication should be located as closely together as possible. For instance, the sales department should not be placed between the order and accounting departments, but the order department should be close to the accounting department, with which it is in constant communication.

The workers in a department should be placed to facilitate the movement of their work from one desk to another. Heads of departments or chief clerks should be within easy reach of all employes in the department, and accessible to the executive.

Offices of executives should be located with reference to their duties. The sales manager and purchasing agent should be accessible to the public. The general manager should be within easy reach of other officers but not necessarily accessible to the public.

The importance of conveniently arranged offices is receiving much serious thought, and many of the larger industrial enterprises

are erecting ideal administration buildings. In all specially planned buildings, the tendency is toward large rooms, rather than smaller rooms separating the departments. A large room insures better light and air, and space can be utilized to much better advantage.

Fig. 10 is a sketch of the first floor plan of the administration building of one of the large industrial enterprises. This is, in many respects, an ideal arrangement.

A noticeable feature is the location of the filing department in the center of the main room. Here it is easily reached by all departments.

At either side of the filing department are the sales and accounting departments. In the sales department several sales managers' desks will be noted, with desks for their assistants across a narrow aisle. It happens that, in this particular business, sales are divided into departments corresponding with the classes of goods manufactured, with a sales manager for each department.

The accounting, order, and credit departments are conveniently arranged, and the auditor is located where he can overlook the entire office. Executive offices, across the front of the building, are accessible to the public and those in the general offices.

27. Store Plans. The subject of store plans is one of utmost importance to the merchant. His success is influenced to a great extent by the first impression received by the prospective customer. If that impression is favorable, if he is greeted by an orderly, well arranged store, if his comfort and convenience have been considered, the customer will return and give to the store at least a part of his patronage.

The old-fashioned general store, in which all sorts of merchandise was sold, offered little to commend in respect to orderly arrangement. As a rule, the goods were jumbled together in a confused mass with no thought of segregating them in departments. Yet this country store, found in every hamlet, was the forerunner of the department store of today.

The advent of the department store was a case of adapting the merchandising methods of the country village to the needs of the city. A miscellaneous stock of merchandise, greater in size but similar in character to the country store stock, was gathered in one big store and subdivided into departments. To compete with one-line stores,

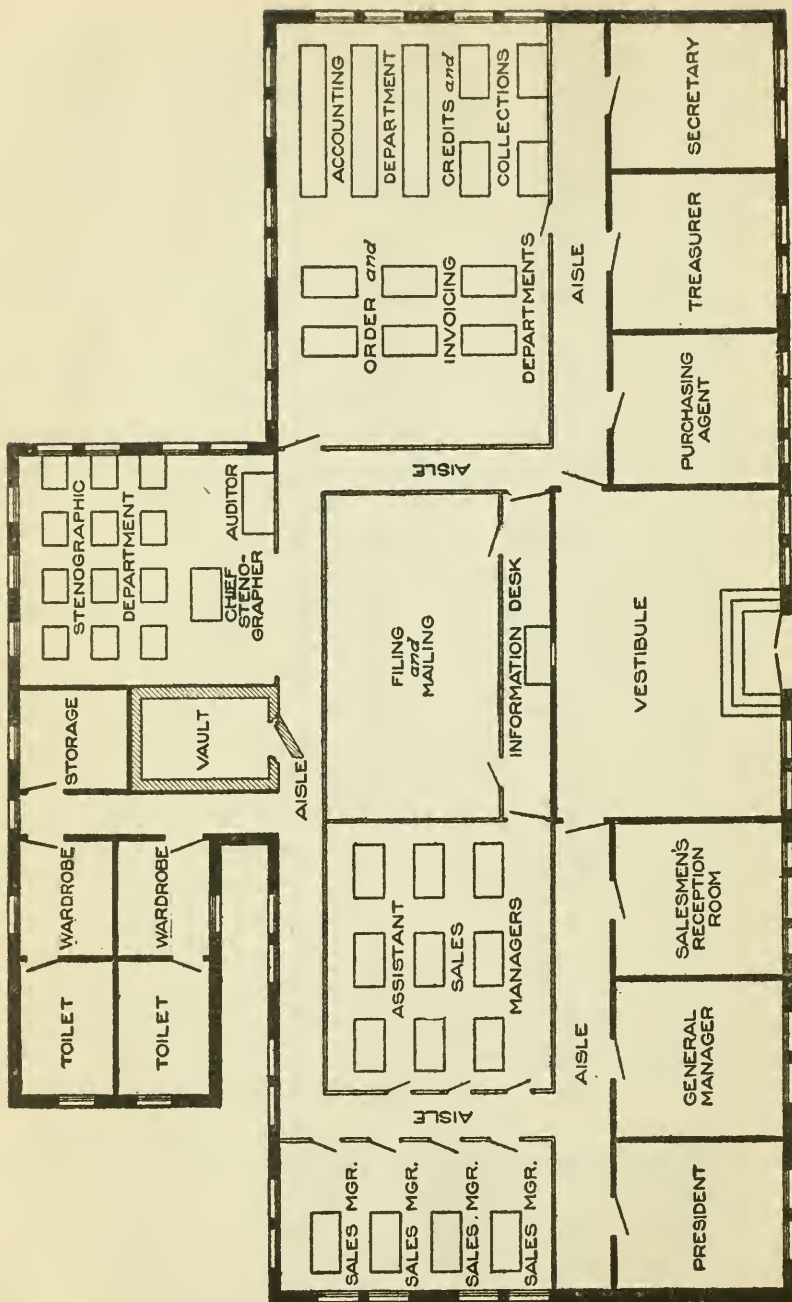


Fig. 10. Floor Plan of a Modern Administrative Building

stocks must be equal in volume, which meant that the department store must carry as large a stock of clothing or of shoes as the exclusive clothing and shoe stores. The stocks must be as complete and as well displayed; each department must be a fully stocked store, prepared to meet the usual demands of a store of that character.

The department store of today is a model of systematic arrangement. Not only are the goods grouped in departments, but the departments are logically grouped and located to suit the convenience of the customers. If one wishes to buy house furnishings, hardware, or dishes, he will probably find them in adjoining departments.

But the departmental idea is by no means confined to the recognized department store; it is a feature of every well regulated store dealing in exclusive lines. Stocks of shoes, hardware, clothing, and furnishings are all divided and the classes segregated by departments.

The departments themselves are subdivided. Goods are classified, and each class placed in special compartments. Goods most frequently called for are near at hand on shelves where they can be easily reached. Top shelves, space under counters, and other inaccessible corners are reserved for goods called for less frequently.

THE COMMITTEE SYSTEM

28. We have already referred to the necessity of coöperation in every successful organization. We do not wish to be understood as advancing this idea of coöperation for the benefit only of executive officers and heads of departments. It must extend farther than this—it must penetrate to every nook and corner of the shop.

We must have the coöperation of every workman, no matter how obscure his position, and to secure this coöperation it is necessary to instill in him an interest in the welfare of the business as a whole. Treat him as a mere cog in the wheel and he will very likely be content to do as little work as possible and still draw his pay, with no thought of bettering conditions in his department. But show him that you recognize his ability—that you know that he knows how his work should be done—and he will readily lend his coöperation. The problem of securing this coöperation has been given much study, and those who have met with the greatest success have done so by showing the workman that his advice and suggestions are appreciated.

No matter how willing you may be to receive them, the workman naturally hesitates to make suggestions personally. But give him an opportunity to discuss a point with others of his kind, and it is surprising how many practical ideas will be brought out. Experience has shown that this spirit of working for the good of the business can best be maintained through the formation of standing committees. Such committees bring out the best ideas of the men composing them, and invariably work for the good of the business.

29. General Factory Committee. In the manufacturing branch of a business, the first committee to be formed is the general factory committee. This committee is usually composed of the superintendent, who acts as chairman, the chief engineer or designer, the tool room foreman, or the special designer of tools, the head of the cost department, and two or three foremen of the most important departments.

The work of this and all other committees must necessarily be adapted to the requirements of the business, but, as a general proposition, the matters to come before the committee may be stated as follows:

1. Reports and discussions of the standardization of the product.
2. Reports of progress on new designs or the redesigning of old product which has been authorized at previous meetings.
3. Discussion of economies in general operating methods, economies in cost of production, and all questions of a similar nature.
4. A report on routine work in the factory—whether stock or special contracts—condition of orders, and condition of stock to fill future orders.
5. The question of promotions. If all promotions in the shop are brought before this committee for approval, it will do away with the charge of favoritism of foremen in advancing relatives or personal friends without regard to their qualifications. A foreman who is obliged to recommend promotions to this committee, will be very careful that the promotion is deserved.

30. Departmental Factory Committees. Many factories manufacture more than one line of goods. In such factories it is advisable to have committees to discuss progress in each specific line. Members of the factory committee should act as chairmen of these departmental committees. The committees will be composed of the foremen interested, the tool room foreman, and the head of the cost department.

The work of the committee, so far as relates to a particular

department, will be very similar to that of the general factory committee. The discussion will cover:

1. Standardization of product and suggestions for new designs.
2. Progress on improvements already started.
3. Economies in operating expense and cost of production.
4. Reports on routine work.

31. Job Bosses. Carrying the committee plan a step farther, it is well to hold occasional meetings of the job bosses. The foreman of each shop will act as chairman and discuss matters pertaining to work in his own shop with the job bosses under him.

In most factories it is also advisable to hold, at least once a month, a general foremen's meeting. This should be a meeting of all foremen, with the superintendent, for the discussion of problems of a general nature and problems relating to specific shops.

32. Sales Committee. In the commercial branch, perhaps the most important committee is the sales committee. This committee should consist of the general manager, who acts as chairman, the sales manager, advertising manager, chief engineer, and superintendent. At times it may be advisable to call in the head of the cost department and the tool room foreman.

At the meetings of this committee the following subjects will come up for discussion:

1. General sales report, showing progress of the business as a whole.
2. Territorial sales reports, showing sales in each territory. Both of these reports should exhibit comparisons between the current and preceding periods.
3. Reports of sales classified according to the nature of the product, or specific lines of goods. This is in some respects the most important of the reports, since it shows which are the fast and which the slow moving lines.
4. Suggestions for and a discussion of proposed improvements in the present products.
5. Discussion of proposed new product.
6. Standardization.

In the discussion of the three last named subjects the engineer and superintendent are especially interested, and it is here that the presence of the cost clerk or the tool-room foreman will be required. A salesman naturally assumes the attitude of considering his customers' desires of the greatest importance. Naturally he wants the factory to manufacture the goods that he can sell. But a discussion of difficulties to be surmounted, increased costs, and like questions

will go far toward bringing him into line and convincing him that the interests of the house lie in his pushing standard goods.

33. Advertising Committee. A committee which is to a certain extent a subdivision of the sales committee is the advertising committee. The general manager should act as chairman, and will have with him on the committee the comptroller, advertising manager, and sales manager.

The work of this committee will be confined to a discussion of:

1. Results of past advertising, including periodical, street car, billboard, and all other forms.
2. Appropriations for current advertising.

These advertising reports are very important, for, after sufficient time to establish an equitable cost basis has elapsed, all future advertising should be based on the cost of actual sales, giving due consideration of course to the season of the year, general tendency of the times, and other factors which might temporarily have a disturbing influence.

34. Organization Committee. Another committee of importance, which, for convenience, we will call the organization committee, is one which discusses all questions pertaining to accounting and record systems. This committee will be headed by the comptroller and will include the sales manager, advertising manager, credit man, purchasing agent, and superintendent. Sometimes it will be advisable to call into the meetings the chief accountant, cost clerk, stores clerk, and even shop foremen.

As indicated above, the chief work of this committee will be a discussion of systems. While the comptroller prescribes all systems of record, reports, statistics, and accounts, he should make no radical changes without discussing the proposed change with those whose work will be directly affected.

Many systems, good in theory and which with coöperation would work out in actual practice, have failed because they were forced on the business. A systematizer may install a good system and get it into operation, but unless he has secured the coöperation of those upon whom its operation will devolve, he will very likely find that after he leaves there is a gradual disintegration until conditions are worse than before the change was attempted.

It is seldom that a foreman or a clerk will resent a change if he is

made to feel that he is, in part at least, responsible for the change. When new systems are introduced in the shop, the foremen are quite likely to look upon them as a means of checking up their departments—a sort of police supervision. This is the inevitable result when innovations of any sort are instituted by employers or their representatives. All employers desire the willing and active co-operation of their employes and are quick to complain that employes do not “take an interest in their work.” But offering the market price for routine service and expecting enthusiastic co-operation is manifestly unfair; this accounts for the prevailing distrust on the part of employes toward prizes, bonuses, “welfare” movements, and other schemes which they think are offered them in lieu of salary to induce them to put forth extra effort. Employers are learning now, as never before, that *in order to get the most from labor* they must themselves be above suspicion. Just in proportion as a high standard is maintained by the management, the workmen will become real associates of their employers and as thoroughly opposed to time-serving methods and other expedients calculated to restrict production as are employers.

Committee Meetings. The frequency of meeting of the committees herein suggested must be decided by each manufacturer. No hard-and-fast rules can be laid down, but generally these suggestions will apply:

General factory committee, weekly.

Departmental factory committees, once in two weeks.

Job bosses and general foremen's meetings, monthly.

Sales committee, weekly.

Advertising committee, monthly.

Organization committee, monthly.

Committee Secretaries. At each committee meeting, a stenographer should be present to act as secretary. When no record is kept, discussions are quite likely to be rambling rather than confined to a specific subject. Then, too, matters which were discussed at the last meeting have grown hazy, and if a man who is responsible for putting into operation a given suggestion has failed in his duty, there is always the chance that no one will think of it at the next meeting unless he brings it up. If, however, an exact record is kept of these discussions and full reports are delivered to every member of the committee before the next meeting, a foreman, or other member, will be very careful about making statements or promises unless he knows that they can be fulfilled.

Where possible, it is best to have the same stenographer act as secretary to all committees, as he will become familiar with their work and can handle it much more expeditiously.

THE SUGGESTION PLAN

35. In many factories, and even in mercantile establishments, a modification of the committee idea has been successfully introduced in the form of what is known as the suggestion plan. This plan consists in asking for suggestions from all workmen, these suggestions to pertain to manner of handling their own work, improvements for the benefit of the business as a whole, safety appliances, sanitary conditions, and anything that may be of benefit to the business.

While between foremen and heads of departments the committee plan undoubtedly works to the best advantage, we advocate the suggestion plan for the rank and file of workmen. Even when called into a committee meeting, the workman sometimes hesitates to express his opinions, when if he were permitted to give them in some other manner he would make many valuable suggestions. The plan is to place at convenient points boxes with slots cut in the top in which the suggestions can be placed. Workmen are invited to write out their suggestions and place them in these boxes. They may either sign them or give their clock numbers. The latter plan is sometimes advisable, as it does not reveal the identity of the men making suggestions. All suggestions are taken up in committee meeting by the committee directly interested, and a small prize is given for those suggestions that are put into use. Even so large a department store as Marshall Field & Co. has found it extremely profitable to offer \$1.00 for each suggestion offered by an employe that is finally adopted.

Another method is to use autographic registers like the one illustrated in Fig., 11 on which three copies are made. The original is sent to the office, the duplicate is retained by the workman, while the triplicate remains on a roll in the machine. This is removed at the time of the committee meeting, and any suggestions adopted are posted on a bulletin board. The workman need not even sign his number, but can present the duplicate as proof that the suggestion was made by him.

The introduction of any or all of these committee and suggestion

plans requires careful study, but when once put into operation they will prove both successful and of inestimable value to the business.

ORAL ORDERS CAUSE CONFUSION

36. Probably no more prolific source of confusion and mis-

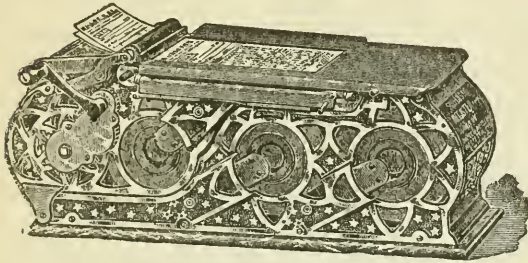


Fig. 11. Autographic Register Made by United Autographic Register Co.

understanding of instructions is to be found than in the habit of giving oral orders. "I understood you to say" or "I thought you meant" are familiar excuses offered for a failure to follow what the one

giving them considered clear and explicit instructions.

The absolute necessity of clearly defined authorities that every man connected with an organization may know from whom he is to receive orders, is well recognized. When we get above the one-man business, employes are not left in doubt as to the *source* of their orders. Why then should there be left the slightest chance of misunderstanding as to the *nature* of their orders?

When we issue orders that are to be executed by someone outside of our own organization, we are careful that they are in writing. If an order for goods is placed by telephone or telegraph it is confirmed in writing, not alone for the legal protection afforded by a valid contract, but that there may be no confusion or misunderstanding. When we receive an order we prefer to have it in writing for the same reasons.

The success of any undertaking is largely dependent on the proper execution of orders. Surely, orders to be executed within the organization are of equal importance to those that will be executed by an outsider, and at least the same care should be exercised in issuing them. The logical conclusion then is that they should be given in writing. True, oral instructions are sometimes necessary, but all orders and instructions of importance should be in writing.

There are many classes of internal orders, depending on the nature of the business. Among them is a class of inter-departmental com-

munications more in the nature of correspondence than direct orders. In the harmonious operation of an organization, many requests are made between departments; general orders affecting all departments are given by the manager; bulletins are issued by a department manager to all employees under him—all of these should be in writing.

As an illustration, take a special order from a customer. A salesman reports that an order can be secured for certain goods provided some slight change is made in the design. The sales manager will communicate with the superintendent about the cost of making the changes. The question then goes to the general manager for a final

<i>Date</i> _____	
TO _____	DEPARTMENT
SIGNED _____	
DEPT. HEAD	

Fig. 12. Blank Used for Interdepartment Correspondence

decision. Imagine the chances for argument if these negotiations are carried on orally, but if in writing, what each man said is on record and entirely clear.

No elaborate form is needed for these communications, but it is best to use a form differing from that used in the regular correspondence. A simple form is shown in Fig. 12. The form should always show from what department it comes, and, to avoid confusion, it is an excellent plan to use a distinctive color for each department.

Each department should keep a file of these house communications, including carbon copies of those issued by them. It is fre-

quently necessary to follow up their requests to secure reasonably prompt action.

To insure the follow-up, each department should be provided with a follow-up file or tickler, a file having thirty-one numbered compartments to represent the days of the month. This same file can be used for all sorts of memoranda of matters requiring attention on a future date.

ADVANTAGES OF UNIFORM BLANKS

37. One of the little points in the routine workings of a business office that is not always given proper consideration is the establishment of a uniform system of blanks. The blanks used for a given purpose in one department will be of a certain size and color, while those used for the same purpose in another department will be radically different in both size and color. Or blanks of entirely different classes will be identical in size and color. The result is a miscellaneous collection of blanks in all sorts of shapes and sizes.

Uniformity in blanks at once establishes a means of identification, avoids confusion, saves filing space and limits mistakes.

Though we may have given the subject little thought, we have long been accustomed to uniformity in certain blanks and business papers. If we have been receiving freight over several railroads the freight bills of each have been readily distinguished by size, color and style of printing. Correspondence from our customers is recognized by the style of the stationery, and orders are distinguished from other communications of the same concern.

Aside from the question of convenience, there is a certain advertising value in stationery and blanks with distinctive features. At a glance we recognize in the morning mail the communications from certain of our correspondents. We feel sure this envelope contains a remittance, that one a welcome order, another an invoice of goods for which we have been waiting; each is recognized by a certain style of the envelope. At no additional expense we can make our own stationery distinctive. Letter heads, order blanks, statements, invoices, remittance blanks will be recognized not by one but by all of our regular correspondents. They will soon learn to associate our name with certain styles of stationery.

Distinctive stationery does not necessarily mean expensive

stationery. Our advice is, buy the best quality that you feel you can afford; above all, make it distinctive, make it represent you. Adopt a color, or style of type, or shade of ink that will make your stationery stand out from the mass coming to the desk of every business man.

The problem of filing space is a serious one in most offices, already overcrowded. Filing devices are made in certain sizes that have become standard. The more closely blanks to be filed conform to these sizes, the less space will be required. While we cannot regulate the sizes of the stationery of our correspondents, we can regulate the size of our blanks that will eventually find their way into our own files.

FACTORY ORGANIZATION AND CONTROL

MANUFACTURING

Manufacturing Conditions and Developments. Millions of dollars are annually spent in building new factories. Other millions are spent in equipping them with the best machinery that trained and experienced men have been able to devise. Still more millions of money are annually paid to the officials who manage and the employees who man these enormous manufacturing plants.

Why? Why could not these expert employees labor in their own homes or their individual shops, and produce the manufactured goods without all these enormous expenses? What are the necessities which impel men to spend these vast sums of money in erecting, equipping, and operating these immense plants?

Casually considering the question, the *factory* or *manufacturing plant* does not seem to be a real necessity. A large force of employees working under a single management does not seem to be the most economical method of producing the desired goods. Certainly every man is free to choose his own particular line of work; and there are many persons who, seeing a large force of employees giving their entire life work to the enrichment of successful manufacturers, while the employees themselves work long hours at hard and laborious tasks and fare so poorly that they are seldom enabled to save any considerable portion of their wages, not infrequently ending an industrious life in poverty and want, are led to believe that the factory is not a necessity or even a benefit to mankind, but rather a means for reducing the individual worker to a condition of grinding servitude, voluntary perhaps, but often the result of dire necessity.

These people, considering all the hardships in the life of factory employees, are likely to hold and often to express the opinion that the highest welfare of the human race really demands a return to the simpler life of early days, when a much larger proportion of the people lived upon farms, producing their own provisions, raising the flax

and the wool wherewith they clothed themselves, quite independently of the wealthy classes, whether bankers, capitalists, or manufacturers, the factory as we know it to-day having hardly begun its marvelous era of existence.

Let us consider for a moment how all this has come about. In the earlier years of the independence of this country, the chief dependence was upon the results of agricultural work. In due time the development of the resources of the country has placed manufacturers at the front, so that in very recent years the value of manufactured products has become nearly double that of agricultural.

These results, like many others of a less notable character, commenced from very small beginnings; and it has been by inborn mechanical ability, remarkable ingenuity, patient development, and tireless energy, that mechanical undertakings have been developed from meager initial facilities, until, in the vast manufacturing enterprises of the present day, the American mechanic in nearly all lines leads the world in originality and practical achievement.

Early New England Mechanics. When the early settlers of New England labored under the restrictive and harassing laws of the Mother Country, and under their administration were goaded and exasperated beyond endurance in many ways, not the least of which was that of being obliged to purchase many manufactured articles from England at extortionate prices—or, if purchased from other countries, still paying taxes to England for the privilege—they rebelled. Determining to buy no more foreign goods, they set out, at first in most clumsy and primitive fashion, to make for themselves such articles as were really necessities, and, in noble self-denial, to live without those which they could not make for themselves. They doubtless little realized, however, that they were thereby laying the foundations of the greatest manufacturing country in the world. By the principles thus inaugurated, they instituted the first industrial *boycott* in the history of the country—the one that has had more important and far-reaching influences than anything of the kind before or since.

Industrial Freedom. While the departure of the Pilgrims for this country, and the making of their homes on the “stern and rock-bound coast” of New England, were for the purpose of seeking religious freedom, it is also true that freedom soon meant very much more than

this to them; and with a larger conception of their opportunities and possibilities, some of which were in reality forced upon them by adverse circumstances, there came to them the inspiration of *industrial* as well as *religious freedom*. The world has seen and has given them due credit for the determined and heroic manner in which they went about their self-appointed task; and they have amply demonstrated to posterity their appreciation of and grasp upon the possibilities and conditions, and the breadth and nobility of character which they exhibited in working out the many perplexing problems that confronted them.

Development of American Industrial Enterprises. American manufacturing came into being with these small beginnings and crude efforts to fashion those common objects of household necessity and daily use, which, although crude and clumsy, yet answered the purpose until supplanted later by those of more improved form and workmanship. These primitive successes led to greater endeavors, and developed into still broader usefulness, when the time came that necessities had been provided for and luxuries were now demanded by the higher plane of living to which the people had in due time advanced.

Thus the crude beginnings and rude surroundings among which the early American mechanic performed his work, were in his own house. Soon he outgrew these primitive facilities, and built small shops, frequently in the garden or back yard of his home. These gradually enlarged. The development of the business demanded increased facilities, and buildings were erected quite independent of the home surroundings, and two or more men were associated as manufacturers. These plants developed and enlarged, and in due course of time became the machine shops and the factories, which have since multiplied many hundreds of times, not only in number and in value, but in influence and importance, until to-day our country stands the foremost manufacturing nation of the world. This is true, not only as to the volume and value of her manufactured productions, but also as to their great range and diversity of kind and usefulness. One by one the American mechanic has taken up the various classes of work formerly monopolized by this country or that, failing perhaps at first, but always progressing and developing, until, by native ingenuity and unflagging energy, all obstacles have been overcome,

all difficulties put aside, new industries have come into being, and other "victories" of peace "no less than those of war" have been added to the laurels of the American mechanic and of his ever-ready and ever-confident partner, the American manufacturer and capitalist. It is to this combination, each confident of and faithful to the abilities and honor of the other, and each acting his part in his own sphere of usefulness, that the immense success of American manufacturing is due.

The factories of to-day are the logical results of a natural growth and development of the various branches of business for which they were originally built and organized. As the buildings increased in numbers and dimensions, the methods of construction, the equipment, and the systems by which they were managed, developed methods of greater economy and efficiency.

Tools of the Early Mechanic. The early mechanic had few tools and appliances wherewith to perform his work; and these were crude and primitive, consisting principally of a limited number of hand-tools brought from the Old Country, and occasionally a hand-lathe of modern dimensions and operated by foot-power. But with their few tools and meager facilities, and animated by the condition that "necessity is the mother of invention," these old-time mechanics proceeded with practical common sense and ingenuity to design and construct better tools and machines—which have continually developed, until we have the splendid array of manufacturing machinery seen on every hand to-day. As machinery developed, larger and larger amounts of money had to be expended; and the banker had to be called upon to provide it. Thus the capitalist became the partner of the manufacturer, the one furnishing the mechanical ability and inventive genius for the actual designing and building of machinery and manufactured goods, while the other contributed the money to carry on the work, and the business ability necessary to market the product.

Relations of Capital and Labor. In brief, this is the condition to-day. But, says the carping critic, "there are often hundreds of struggling and hard-working employees where there is one rich manufacturer." This may be partly true, although it is a fact beyond dispute that the American mechanic is the best paid workman in the world. It is true that there are hundreds of workmen to one capital-

ist. Why? The Creator has so ordained that there shall be many of moderate ability, and but few possessing the unusual ability and talent to lead them. So it has ever been since the days of Moses, and so it probably will ever continue to be. Doestick's regiment composed entirely of colonels was a manifest absurdity, and so intended as an illustration of a well-known and natural condition that should be realized by every reasonable and thoughtful man who considers these questions.

Considering carefully the great scheme of manufacturing, and the immense industrial problem of supplying the wants of the people of this great country and providing for the vast volume of trade that goes abroad, by the modern manufacturing plants equipped with all that is latest and best in machinery for every conceivable purpose, it should not be forgotten that, as the very basis and foundation of the whole, stands the modern *machine tool*, and that it is principally to the great and important development of this that we owe primarily our industrial growth and prosperity as a manufacturing nation. To the machine tool may easily be traced the gradual but continued upward tendency of the mechanic and his methods, from the hard physical toil and small pay of the early days, to the immeasurably lighter exertion and increased compensation made possible by the highly developed condition of the automatic machines of the present day. It has been an oft-repeated victory of "mind over matter," wherein *brains* have won where *hands* made but little advance; *ideas* have developed wonderful mechanisms that have revolutionized the earlier methods of manufacturing and raised the standard of mechanical excellence beyond what was thought possible years ago, and at the same time reduced the cost to a fraction of its former amount.

Here, again, the capitalist furnished the means whereby the practical realization of the ingenious designs of the mechanic's fertile brain became possible, and the successful combination of capital and labor brought success to both.

Combinations of Capital. But here comes our critical labor agitator again with the comment: "It is all very well to talk about the amicable relations of capital and labor, and how each ought to help the other, but how about the great combinations of capital that we ordinarily call "trusts"? To give a correct and intelligent, as well as a fair and truthful answer to this question, we must know the

conditions under which the combination is formed, the *plan* upon which it is organized, and the *object* of its formation. As these are not given, we must assume the conditions of some well-known combination. Let it be the United States Steel Corporation. One of the foremost men in this combination has defined his position on the subject, and in so doing has outlined the policy of the corporation, by saying:

"Any combination of capital which operates, *first*, to prevent competition; *second*, to increase the price of the product; and *third*, to reduce the wages of the workmen, is working under a trio of wrong principles that sooner or later will bring about disaster."

Let us see how the actual operation of this combination of capital really works out in practice.

First—The Steel Corporation has never sought to prevent competition. Steel mills, large and small, have operated when, where, and how they pleased, with no interference from the Steel Corporation.

Second—The price of steel has not been increased; on the contrary, it has been greatly reduced under its management. Thirty years ago a very indifferent quality of machine steel cost from 8 to 12 cents per pound. To-day ordinary machine steel of a much better quality than that mentioned above can be had for 2 cents a pound or less.

Third—The wages of workmen have not only not been reduced, but have actually been doubled since the labor troubles in the steel mills known as the "Homestead Strike" (1892). The Steel Corporation has gone much further than to double the wages of the steel workers. They have made it possible for the workmen to become partners in the great work of the corporation, by obligating themselves to sell to their workmen a certain amount each year of stock in the corporation, so that the men who labor in the mills may also become part owners and participate in the dividends resulting from their work on exactly the same percentage as the capitalist himself does.

Our critic comes back to the charge by saying that "the Steel Corporation has bought up many steel plants in various parts of the country, and added them to its already enormous properties." Quite true. And for what purpose? Let us see what they do with these plants. How do they manage this part of the business? What is their plan of working? The conditions were these: Before the advent of the United States Steel Corporation, there were many isolated steel manufacturing plants, each being equipped for the making of a number of kinds of steel products—for instance, steel railroad rails, structural steel, merchant bar steel, steel boiler-plates, steel tank-plates, and so on. The equipment necessary for producing these different forms of steel was very expensive; and inasmuch as a considerable portion of this equipment for some particular kind of product would necessarily be idle on account of the fluctuations of trade, the expense burden was abnormally high on account of this idle equipment. How has this condition been handled by the Steel Corporation? This has been the plan: Suppose they have purchased five plants, each making the five classes of product indicated above, and working

under the disadvantages of a variety of products. These plants are examined, and inventories made of their equipments. It is then decided which mill is best adapted for making each one of the five classes of products. Then there is a redistribution of the equipment of the plants, placing in the plant selected for it all that in the several plants is adapted to a certain product; removing all the machinery from this plant that is not adapted to the particular product to be turned out, to be distributed among the other plants according to the particular class of products for which each one is designed. Thus each plant is equipped to turn out the single class of product which is most appropriate for it, by drawing upon the other plants for such machinery as they have which may supplement its own in this line.

By this plan, each plant makes but one class of product. Having the best machinery from all the plants for this purpose, and concentrating its energies on a single class, it is enabled not only to turn out a better product, but to turn it out much more economically than before. As the workmen become more expert on their single line of product, they work more efficiently and consequently earn higher wages. All these conditions, producing an economical output, enable the manufacturers to reduce the selling price.

The conditions of economy brought about in the management of the manufacturing operations and in marketing the product, are very marked when a large number of plants operate under one general head. Again, with the immense amount of capital at the disposal of such a corporation, it is enabled to secure the services of the best experts, and the most valuable processes in existence.

There are many other advantages, not only to the corporation and its employees, but to the users of its products, and so to the general public, when a combination of capital is *honestly made and honestly administered*.

Betterment of Industrial Conditions. What has been said of the Steel Corporation as to favoring of employees, has been duplicated in various ways by different manufacturers all over the country. Factory sites have been beautified by landscape gardening, and trees and shrubbery have made the surroundings of working men and women pleasant and attractive. Land has been purchased, and workingmen's homes built and rented to them at fair rates. Factory dining rooms are provided; reading rooms, libraries, gymnasiums, clubs, and social organizations are inaugurated; emergency hospitals or "first aid" rooms are arranged, with all or nearly all these services free except that provided in dining rooms, which is furnished at actual cost. More recently, a firm in Connecticut announces that it will furnish free medical attendance to all its employees and their families.

Schools have been established for apprentices, wherein they receive such technical instruction as may be necessary to their success in the trade they are learning—and this, not only without expense to

themselves or to their parents, but they are paid by the hour for time spent in their school work, the same as for their time in the shop.

To foster a practical interest in the work of the shops, many concerns have what is called the *Suggestion System*, whereby the employees may make written suggestions of any improvements which they desire as to shop methods and routine, the design and construction of the product, and many kindred subjects, the best suggestions made each month receiving prizes.

All of these matters emphasize the fact that the mutual interests of the capitalist who manufactures and sells, and of the employee by the efforts of whose hand and brain the products are being turned out, are each year being recognized and in a very large majority of cases are being acted upon in good faith.

Methods of Modern Manufacturing. In former times, machines were built one at a time or in very small lots. Parts were made and fitted to the particular machine to which they belonged; and while the same general form and dimensions were practically maintained, there was no attempt made to render the several parts so exact as to fit upon any other machine than the one for which they were intended. Systems of gauges had not been developed, and the planer was yet a comparatively new tool; much work was still done by hand, the hammer, the cold chisel, and the file being the chief reliance of a large majority of machinists. This was the state of the machine shop and its methods nearly up to the year 1800.

Interchangeable Manufacturing. The use of milling cutters and the commencement of practically interchangeable manufacturing, came into machine shop practice at nearly the same time. It has been said that "but for the milling machine, there would have been no such thing as interchangeable manufacturing." It might be said with quite as much truth, that if the system of interchangeable manufacturing had not been conceived, there would have been little need for the milling machine. Each, to a great extent, depended very much upon the development of the other—and upon a third factor, the conception and development of the method of handling work (particularly small parts) in jigs and fixtures.

Milling cutters were made in America by one of the early machinists, a Frenchman named Vaucanson, who died in 1782. A sample of these had a hexagonal instead of a round hole, and the

pitch of the teeth was very fine, so that the cutter resembled a saw rather than those at present in use. It is said that a man by the name of Bodmer, in Manchester, England, had made a milling machine in 1824.

It is altogether probable that Eli Whitney, the inventor of the cotton gin, had built and used milling machines previous to this date, as the following item of mechanical history would seem to indicate. In January, 1798, Eli Whitney received from the United States Government an order to furnish ten thousand muskets, of which four thousand were to be delivered in one year, and the balance in two years. Mr. Whitney went at the undertaking in a very thorough and systematic manner. He first developed a water power; then erected suitable buildings; considered and developed ways and means for a larger and better product than had previously been realized; designed and built machinery to effect it; and trained workmen to a degree of skill necessary to success in their new employment.

The difficulties which Mr. Whitney encountered and the obstacles which he had to overcome, were so much greater than he anticipated that it was really eight years instead of two before he had succeeded in completing the government order for the ten thousand muskets. However, the progress which he had made in this new enterprise, and the character of the product which he turned out and delivered, were so satisfactory to the government officials that Congress treated him with the greatest courtesy and consideration.

His shops were situated in the city of New Haven, Conn., and soon became the Mecca of government officials, manufacturers, traveling notables, and foreigners, who had heard of this wonderful American mechanic and came to see his work for themselves—to find that the system, the machines, and the tools which he had perfected were well worth the journey. His innovations in the manufacture of arms formed as great an epoch in mechanical history as had his invention of the cotton gin.

Jigs and fixtures were among his equipment; and it is altogether probable that milling machines were also in use, since he must have had practical knowledge of the utility of the milling cutter at this time, as it is generally assumed that the first practical use of the milling machine was in the making of parts of muskets.

The buildings which Mr. Whitney erected for his use were substantial stone structures, and stand in a part of the city called in his honor "Whitneyville." They form a part of the extensive plant of the Winchester Repeating Arms Company.

At this point and at this early day, therefore, was inaugurated the modern system of interchangeable manufacturing—or the manufacturing, in large numbers, of duplicate parts, within such a limited degree of variation as to admit of their ready interchangeability with one another. The system was not one that would be confined to the manufacture of arms, but was adaptable to the production of all kinds of small and moderate-sized machinery, and was the initial effort which in due time revolutionized the then existing shop methods, and which has since built up the American system of manufacturing to the proud distinction of being superior to anything of the kind in other manufacturing countries.

In the operations of modern manufacturing, the principal object sought is to turn out the product economically and accurately. To produce these results economically, the parts must be produced very rapidly. To produce them rapidly, not only must there be a very complete and efficient equipment of machines, attachments, tools, jigs, fixtures, and gauges or measuring devices, but there must also be a very complete system of shop methods by which the operation of this equipment is carried on.

It has been well said that "the man in whose brain the manufacturing system was born was he who first took a piece of scrap iron and drilled two holes in it, to guide a drill in making another piece with two holes in it the same distance apart as in the first piece." The men who now fill our drafting rooms and tool rooms, and who devise and construct tools for the production of interchangeable metal parts, are his descendants. They have made possible the manufacture of the breech-loading gun, the typewriter, the cheap sewing machine, the cash register, the machine-made watch, the automobile, as well as a thousand and one other mechanical articles, machines, and devices which form an integral part of our twentieth-century civilization.

To render these systems efficient and economical for these purposes, the work must be *repetition or duplicate work*. That is, there must be very large numbers of each of the different parts; and to carry out the scheme of operation for the division and subdivision of work,

a single operation on a large number of parts is performed; then the work is handled again, perhaps in another machine, and another operation is performed; and so on until the part is complete. Thus a piece of comparatively simple form may require a large number of separate and distinct operations to complete it. But, as each single operation is performed by one operator, he may give his undivided attention to the accuracy of that operation; hence very accurate work can be produced.

In the development of these systems, the work has continually grown more and more complex, as have also the requirements as to the buildings in which manufacturing work is performed, and as to the equipment necessary to perform it. Conditions have been continually changing; greater speed as well as greater accuracy in all machine operations has been demanded; and a largely increased output per employee has been required. So great and urgent has been this demand that the employee of to-day will turn out from three to ten times the volume of product of a given kind that he did only a few years ago. Undoubtedly this result has been brought about in great measure by the great improvement in machines, tools, and fixtures. Much is also due to the use of tools composed of high-speed steel; still more, to the employment of improved systems for handling work.

But all of these do not fully explain the enormous increase in product per employee. This has been brought about by various methods of shop management. One of these is the specialization of operations and the division and subdivision of departments, whereby each operator has a certain well-defined and very limited number of operations to perform. These operations he performs over and over, hundreds and sometimes thousands of times daily, until he becomes so accustomed to each movement that the operations are performed not only with great rapidity but also with great accuracy. Still another factor in the question of individual output, is the efforts that have been made through systems of premiums, bonus, and similar methods of reward for individual effort when the output reaches or exceeds a certain fixed limit. These rewards are not confined to the operatives, but are often extended to the foremen, assistant foremen, gang bosses, and others of the "non-productive" force who have indirectly contributed to the efficiency of individuals and hence to departmental efficiency.

In the succeeding articles, these matters will be taken up and treated in detail, giving the actual practice as now prevailing in some of the best organized manufacturing plants.

MACHINE SHOP MANAGEMENT

Modern Meaning of Shop Management. The present understanding of the term *Shop Management* is quite different from the sense in which it was used years ago. Formerly the management of the shop was vested in a *superintendent* whose duties consisted in purchasing material, inspecting it when it was received, turning it over to the foreman, and in a general way looking after the work as it was being performed. In addition to these duties, he frequently handled the selling of the product, the collection of accounts, and the proper provision for meeting the pay-roll on pay-days. He also had a general supervision over the grounds and buildings and their care and maintenance, as well as the provision for power, lighting, and heating. By this arrangement of duties, it will be seen that comparatively little time was devoted to actual shop operations, and much time to different lines of duties that might more economically and often quite as efficiently be performed by assistants at a much lower rate of pay.

In the modern methods of shop management, all these things are changed. The specialization of workmanship, the division of duties, the limiting of responsibilities—each restricted within narrow limits by sharply defined regulations—have reduced the variety of operations of the workman, and of responsibilities and duties of the men who direct manufacturing work.

We find the purchasing of material and supplies in charge of a *Purchasing Agent*. We find these purchases checked by a *Receiving Clerk*, turned over to a *Storekeeper*, and subject to examination by a regular *Inspector*. They are then put into the store-room, whence they are drawn as needed for the different departments, the foremen of which sign definite orders for such kinds, quantities, and qualities as may be needed, specifying the purposes for which they are to be used or the particular orders to which they are to be charged. When issued, they are receipted for by the person receiving them. All this is conducted with the same regard for business rules as if the foreman were making a purchase on his own account and paying for the goods. We find the selling of the product in the hands of an expert *Sales*

Manager, often assisted by a corps of engineers, draftsmen, book-keepers, and clerks, numbering more persons than the entire factory's force of non-producers twenty years previously. A *Credit and Collection Department* attends to all collections, and the *Treasurer* and *Cashier* see to it that the money for the pay-roll is on hand when wanted. A *Production Engineer* regulates the volume of work going into the shop, and the sequence of mechanical operations by which each piece or part is to be machined and perfected. An assistant to the Superintendent looks after the condition and maintenance of grounds and buildings, yards, and the transportation facilities of the plant.

By these developments of the system of management into a division of duties and responsibilities, the time, attention, and abilities of the Superintendent may be devoted to his legitimate purposes of *superintendence* or *supervision*, planning and directing the work of the assistants and heads of departments.

A Typical Manufacturing Plant. For the purpose of taking up the question of Management in a systematic and practical manner, we must first assume that we have a shop to manage; and secondly, that it is of the usual type of manufacturing plant built, organized, and managed at the present day. The plan of such a plant is given in Fig. 1.

In planning a plant of this character, provision must primarily be made for the various departments for the following purposes:

1. An *Engineering Department*, wherein the machines forming the product may be designed and the drawings made for the various classes of mechanics who are to perform the work of turning out the product.
2. A *Pattern-Making Department*, in which the necessary patterns are made for use in the foundry for producing the castings.
3. A *Forge Shop*, capable of producing such forgings as are required in the machinery to be built.
4. An *Iron and Brass Foundry*, in which may be produced the rough castings of the parts that are to enter into the machines constituting the product.
5. *Manufacturing Departments*, in which all parts (large and small) of the product are made from the rough stock—such as castings, forgings, bar stock, and the like, to the completed parts ready for assembling.
6. *Assembling and Erecting Departments*, in which individual parts may be assembled into groups of related parts, and these erected into complete machines.
7. A *Power Plant*, containing the proper equipment for furnishing the necessary power for driving the machinery in these various departments, and for providing lighting and heating facilities for the plant.

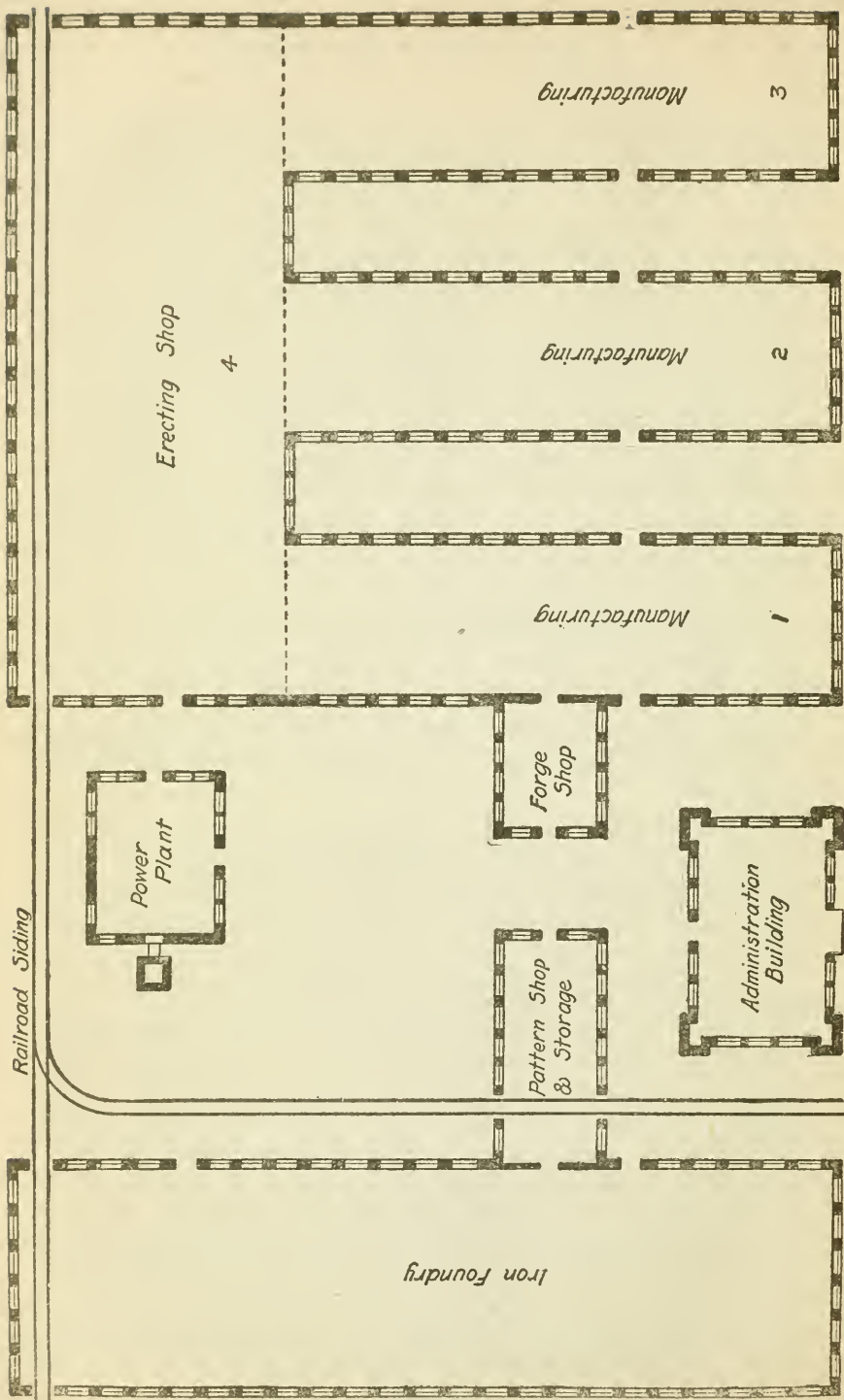


Fig. 1. Typical Layout of a Manufacturing Plant.

The *General Office* of the concern is of course understood; but, as it cannot properly be classed with departments of the plant, it is not included in the above enumeration.

In addition to the above list of principal departments, there will be the following—quite as necessary, but secondary in importance:

1. The *Transportation System*, including shop and yard tracks and cars, elevators, cranes, hoists, and all similar appliances for handling material.
2. The *Tool Room*, for making tools, jigs, and fixtures, and for properly storing them in a convenient manner for issuing when they are called for.
3. An *Experimental Room*, which all progressive concerns find necessary in the development of their product.
4. The *Store-Room*, in which are stored the raw material and the purchased stock, either partly or completely manufactured, which are issued to the different departments as needed for their daily routine work.
5. The *Finished Parts Store-Room*, in which the smaller parts of the product, as fast as they are completed, are stored and held until wanted for the process of assembling.
6. The *Pattern Storage Room*. In this department, often occupying several floors of a building specially constructed for this purpose, are stored all patterns for the iron and brass foundries, and also those sent to outside foundries for malleable and steel castings.
7. The *Carpenter Shop*. This is a general utility department making boxes and crates for shipping; doing carpenter work in keeping the grounds and buildings in proper repair, and making necessary changes therein; making and repairing flasks for the foundry; and similar work.
8. The *Paint Shop*. A small room serving little more than as a store-room for paints and painters' materials, as their work is principally done at various points in the shops, wherever the machines or parts may happen to be.
9. The *Shipping Room*. In a plant building large machinery, the shipping room is simply an office for the shipper, the physical work of shipping being done in the shops, wherever the machine may happen to be at the time.

Referring to the plan given in Fig. 1, it will be seen that the Administration Building is placed in substantially the center of the front line of the plant. The first and second floors of such a building are usually devoted to administrative, commercial, and accounting purposes. The upper floor is usually occupied by the Engineering Department and drafting room.

The three Manufacturing Buildings numbered 1, 2, and 3 are devoted to the various operations of making the parts of which the machinery product is composed. These parts are then sent to the Erecting Building (No. 4).

The system of shop transportation consists primarily of shop tracks and cars, and is extended to the yard, being so designed as to connect all buildings of the plant with one another and with the yard.

It also reaches the railroad tracks at numerous points. Overhead traveling cranes cover the manufacturing buildings, and extend into the erecting building far enough to form a connection with the large traveling crane serving it, by which the large parts of machines are carried from place to place as may be required by the erecting men. This crane serves to load the finished machines upon the railroad cars, when they are to be shipped, the railroad track being extended within the building for this purpose, as shown in Fig. 1.

The Tool Room is given as central a location as possible, and would naturally be near the junction of building No. 2 with the erecting building.

The Experimental Room has no particular place, but is frequently so placed as to be away from the active manufacturing operations, with which it is liable to interfere if too closely related.

The general Store-Room for purchased material may be in the erecting building, but is frequently located, for convenience of communication, nearer the general offices—as for instance, in front of building No. 1.

The smaller parts are stored in a Finished Parts Store-Room, usually located in this building. Thence they are issued to the Assembling Department as required.

The Pattern Shop building will often be composed of three floors. On the ground floor will be the Carpenter Shop and flask making and repairing work. On the second floor will be the pattern-making shop, and on the third floor will be the pattern storage rooms. A large elevator serves all three floors.

The Paint Shop is sometimes located in one of the manufacturing buildings or the erecting building; but as the painting of machine parts and complete machines is generally done in any one of the departments where the work may be, and the paint shop is hardly more than a store-room for paints, a due consideration of the question of fire protection would indicate that it had better be placed in a small building entirely detached from all manufacturing buildings.

The Power House, in the former method of transmitting power by shafting and belting, was located as nearly as possible in the center of the space over which power was to be distributed. Since the advent of electricity and its common use for transmitting power, the question of the location of the power house is relieved from this con-

dition; it may be located at the point most convenient to railroad facilities for receiving fuel, or for obtaining the necessary water for boilers, for fire purposes, etc.

In a plant manufacturing small machines or a kind of product which is shipped in small quantities, it is obvious that the Shipping Room must be convenient to the point from which these goods are to be taken by railroad cars, by boat, or by teams. If most of the shipping is of large machines or articles which must be handled by cranes, the railroad tracks will be run into the erecting building, and the machines loaded there, in order to avoid the expense of extra handling and moving them. This is the arrangement shown in Fig. 1. In this case the shipping room may be in the Administration Building, so as to be convenient to the other office departments. In some kinds of business it is convenient to have the shipping room and general store-room near each other, as there is considerable business done in each that is quite closely related to the other.

The Iron and Brass Foundry is usually located at some distance from the manufacturing buildings, in order that the latter may be as free as possible from the annoyance of smoke and dust. It is connected with the other departments by the system of shop and yard tracks, and the railroad siding track passes through one end of the building as a matter of convenience in shipping castings. There is also a branch track running along the side of the foundry building for the purpose of delivering coke, coal, moulding sand, pig iron, scrap iron, and other foundry materials.

It should be noted that the buildings shown in the plan are located in a compact mass, with considerably less than the usual yard room. In this instance, however, the plan was so drafted to economize space on the drawing. It is the law in some European countries that not over 50 per cent of the area of a manufacturing site shall be covered by roofs. Such a law would be of much value in this country, to prevent the crowding of buildings to such an extent as to be unhealthful to employees.

While factory buildings are frequently erected of from three to six floors, the modern tendency is to reduce the number of floors in all shops and manufacturing buildings; and in the case of machine shops, a large majority of them are built of only one floor. Some, however, have wide galleries at the side, by which considerable second-

floor space is added; while the central portion remains open to the roof, and supplies ample space for the accommodation of the overhead traveling crane, as well as the necessary added height needed for erecting large machinery.

Foundries are necessarily built of a single floor, although there are several in different parts of the country where moulding rooms are located as high as the third floor. This latter arrangement is usually made for brass moulding, rather than for iron moulding.

Organization of a Manufacturing Plant. Having the design of the plant, and assuming that the required buildings have been erected in accordance with this plan, the next step will be to organize the management both in a general way and also as relates to the various departments usually necessary to inaugurate the business of manufacturing.

As the scope of this treatise covers only the shop and its management, we need not take up the commercial organization of the company by which it is capitalized and maintained. We shall therefore consider the General Manager as the head of the organization, and proceed to examine the methods usually adopted for the division of authority and responsibilities from him to the actual workmen at the bench, at the machines, and on the floors.

The chart shown in Fig. 2 illustrates the plan of the organization. Nearly all minor officials and office employees, such as bookkeepers, clerks, stenographers, etc., are omitted from this chart, to avoid confusion and to simplify the understanding of the organization plan and its numerous details.

The General Manager has a personal Assistant, and, for his commercial affairs, the service of a commercial Accountant and a Cashier. Other office employees are similar in number, duties, and responsibilities to those in the usual commercial office.

By referring to the chart, it will be seen that the organization is divided into two distinctly different parts. First, that of *production or manufacturing proper*; and second, that of *selling or marketing* the output produced.

In this case the production division is by far the most numerous and complex. This, however, is not always the case—as, for instance, in the case of a manufacturing concern selling its product through local agents. Frequently the territory over which sales are made is

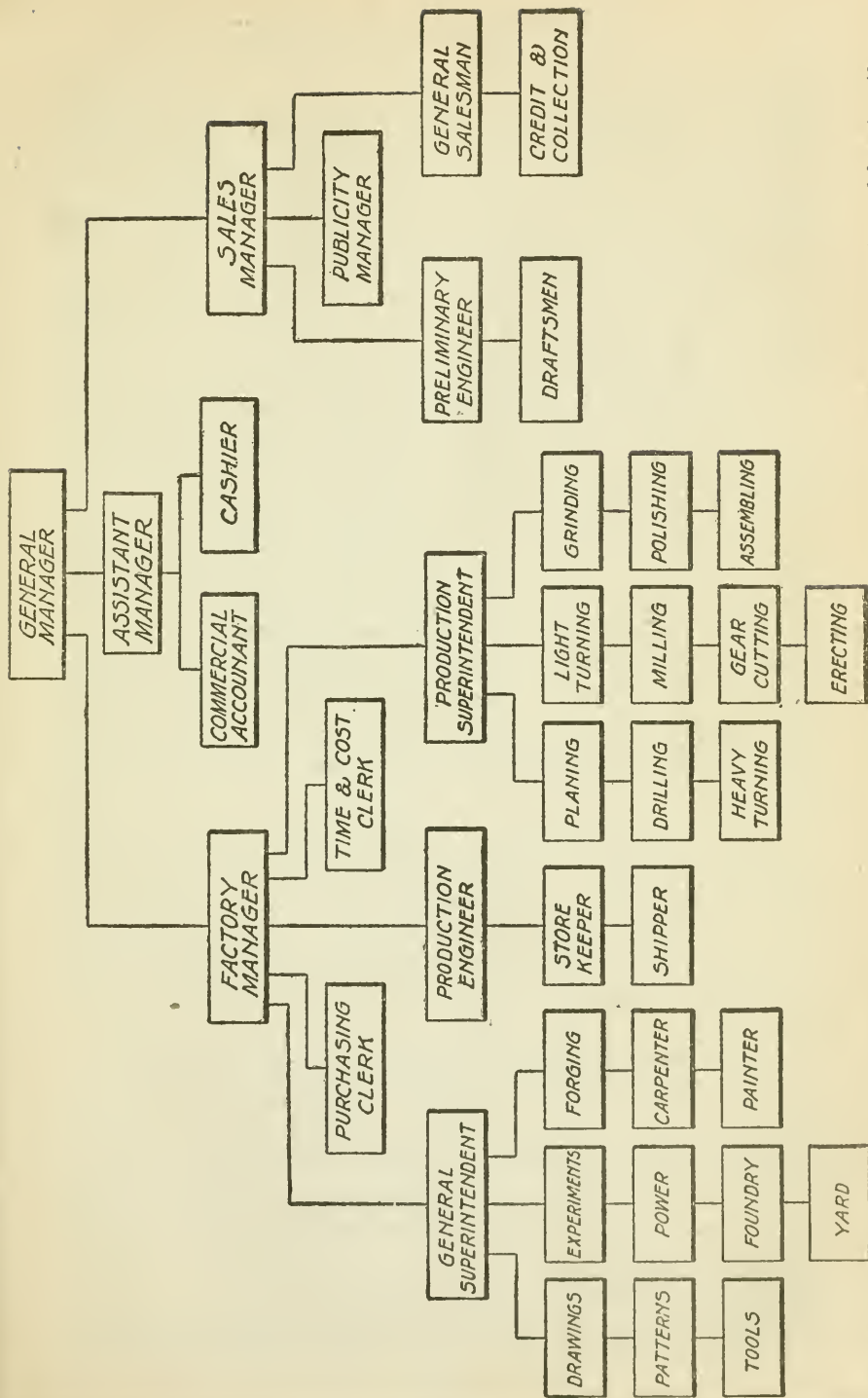


Fig. 2. Chart Illustrating Plan of Organization of a Typical Manufacturing Plant. Showing channels of authority connecting officials and departments.

divided along state lines, and a *District Agent* appointed for each state. These, in turn, appoint the *Local Agents*. This necessitates an organization of hundreds of local agents, supervised by state or district agents, and these in turn by a *General Agent*. Thus a very large organization is built up for disposing of the product.

Another plan is the employment of *Traveling Canvassers*, each having a certain territory to cover, who make their reports to either state or district agents, or to the general agent located at a central point—sometimes at the factory, but not necessarily so.

As competition becomes stronger and net profits smaller, the problem of marketing the product becomes more and more important; greater and more complex selling organizations are necessary; and the expense of selling increases. The advertising organization, or what has come to be known as the *Publicity Department*, is a most important adjunct to the modern manufacturing business; and large amounts of money are annually expended in its maintenance.

In the case under consideration, the selling of the product is in charge of a *Sales Manager*, who has as his office staff the *Publicity Manager*; the *Preliminary Engineer*, and the draftsmen and estimators who assist him; the *General Salesman*, who is in reality the personal assistant to the Sales Manager; and the *Credit and Collection Clerk*.

The *Publicity Manager*, sometimes called the *Advertising Manager*, has charge of all advertising of whatever kind, demonstrations at expositions and at agencies, and, in fact, all work that may be properly comprised under the term "publicity"—that is, keeping the public informed as to the product of the company and its adaptability to meet the needs of the public in the special lines it manufactures.

The *Preliminary Engineer* is in charge of such engineering matters as are necessary upon new work, or work upon which the Sales Manager desires to estimate. It frequently happens that considerable designing and drawing are necessary in this connection, previous to definite orders being given or contracts signed. It often happens that the product of the concern must be changed in certain details so as to adapt it to the uses of various customers, to the different local conditions under which it is to be used, and to the various purposes for which it is to be used. In case an order is given and contracts

signed, the preliminary drawings thus produced become a part of the transaction, and are used by the Production Department in getting out the machinery to fill the order.

The purpose of the *Credit and Collection Office* is to canvass the financial standing of customers and prospective customers; to make collections when necessary to do so; and generally to advise the Sales Manager on these important matters. The official in charge of this office is frequently called the *Credit Man*, and must be a person of peculiar ability in his special line in order to protect the concern from fraud, imposition, and financial losses when dealing with customers of commonly unknown or doubtful financial ability and standing.

The Production Division is under charge of the *Factory Manager*, who has for his personal assistant a *Production Engineer* or *Superintendent*, who plans the productive scheme of the factory and supervises the departmental distribution of the work and the shop operations necessary for the routine work upon it. In a large manufacturing establishment, the Production Engineer will be at the head of a considerable force of draftsmen and clerks comprising what is sometimes called the *Planning Department*, which arranges all operations, shop routine, time schedules, premium rates, and similar matters. The Factory Manager will also have the usual office assistants, and have direct control of the *Purchasing Department*, the *Time and Cost Department*, the *General Store-Room*, and the *Shipping Room*. In some concerns the Time and Cost Department is a part of the Planning Department, as the records of this department cover nearly every kind of information required for the Time and Cost systems.

All other departments of the factory are divided into two general classes. The first comprises the general departments, as follows:

The Engineering Department, or Drafting Room.

The Experimental and Development Department.

The Power Plant, for both the generation and the distribution of power.

The Iron and Brass Foundries.

The Forge Shop and Cutting-Off Rooms.

The Carpenter Shop (including sometimes the Flask Making and Repairing Departments).

The Paint Shop and Painters' Supply Room.

The Transportation Department for shops and yards.

These are under the supervision of the General Superintendent, who has charge of all mechanical matters except those strictly pertaining to production or to the actual manufacturing of the product.

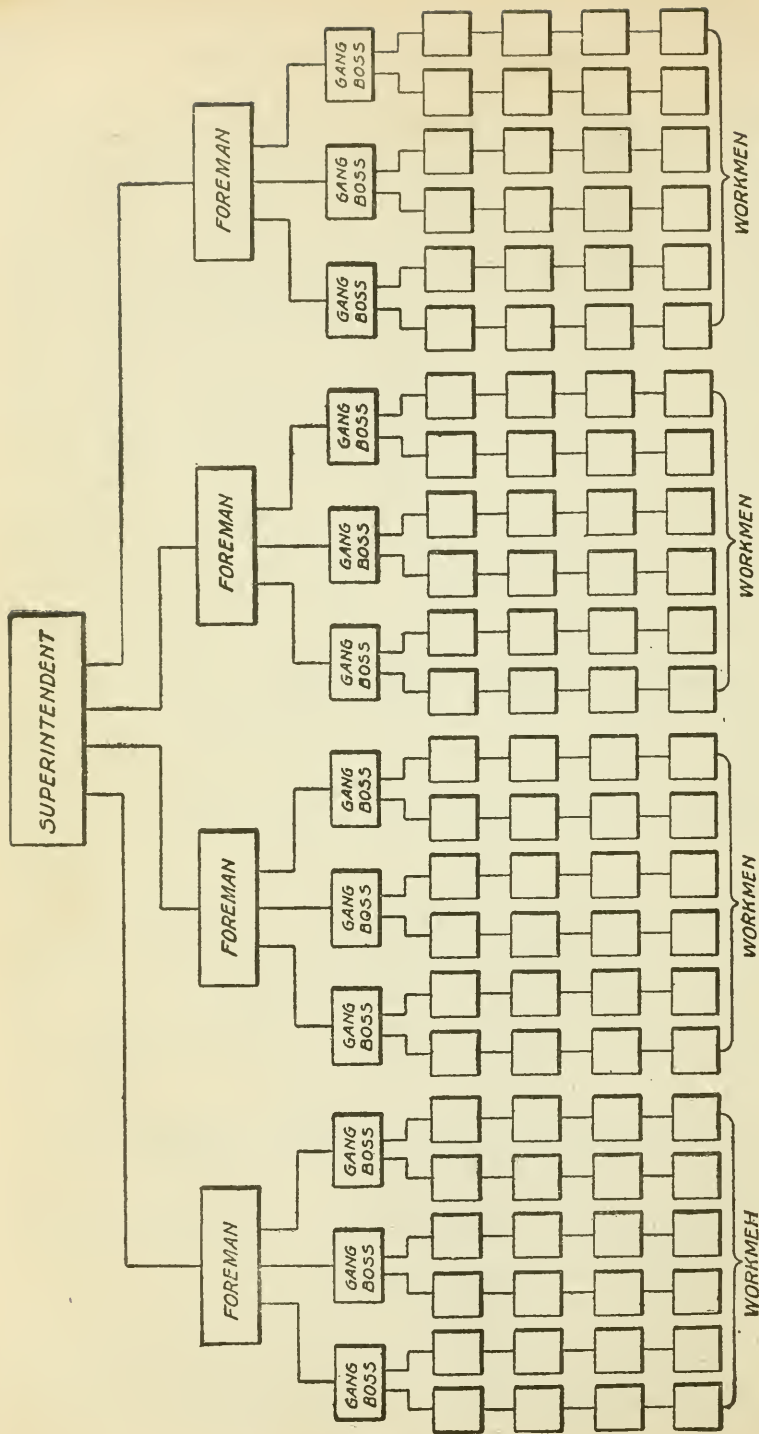


Fig. 3. Chart Showing Official Channels of Communication and Authority from Superintendent to Workmen in a Typical Manufacturing Establishment.

The second general class is that of Production, and will ordinarily consist of the following departments:

The Planing Department, including shapers and slotters.

The Drilling and Boring Department, including vertical, horizontal, and radial drills and boring machines.

The Heavy Turning Department, including lathes of less than 24-inch swing.

The Milling Machine Department, including horizontal, vertical, and special milling machines, profile machines, etc.

The Gear-Cutting Department, for the making of all classes of gears.

The Grinding Department, including cylindrical, disc, and surface grinding.

The Polishing Department, which includes polishing, buffing, etc.

The Assembling Department, in which parts (usually comparatively small) are assembled in groups of related parts and stored, pending the final erection of the machines.

The Erecting Department, in which the entire machine is erected and usually tested, and inspected, receiving the final painting and other finishing work ready for shipping.

Should the character of the product be such as to require it, there will be also a Plating Department, usually located adjoining the Polishing Department.

This class of departments will be under the direct supervision of the *Production Superintendent*.

Each department is in charge of a *Foreman*, who is responsible for the discipline, the work, and the efficiency of the force under him. Frequently the department is large enough to require one or more assistant foremen. Under these may also be *Gang Bosses*, each of whom will have a small force of employees, called *gangs*, for whose work and efficiency he is responsible.

Shop Management. Referring to the Chart, Fig. 2, it will be noticed that the rectangular figures representing different offices, departments, or officials are connected by lines. These are commonly called *lines of authority*, and a careful study of them will show in what manner and through what channels the orders of an official pass to the employees for whose work he is responsible.

Tracing these lines from the head of the establishment through the various offices and officials to the different departments, we get a fundamental idea of *Shop Management*.

This system will be rendered somewhat simpler by reference to the Chart, Fig. 3, which shows the path or official channel of communication and authority from the Superintendent down to the work-

men. It also emphasizes the fundamental idea of all official business passing through the officials in charge of intermediate departments.

Thus, if the Factory Manager desires a certain thing done, he does not give the order to one of the workmen, nor to a foreman, but to the Superintendent. The Superintendent will give his orders to the foreman of the department wherein the work is to be done. If this is a department in which there are gang bosses, the Foreman will give his orders to the proper gang boss, who will select a suitable workman, or as many of them as may be necessary, and instruct them as to the work, and will personally see that it is performed promptly and in the proper manner. When the work is completed, he will report the fact to the foreman, who will in turn report to the Superintendent, who informs the Factory Manager that his orders have been executed.

This process may seem unnecessarily complicated, and in consequence it is sometimes referred to as *red tape*. It is, however, necessary to have a well-defined and properly understood system and channel for all routine business, some of the reasons for which are as follows:

First—It has been said that “no man can serve two masters,” and this is quite true in all questions of shop management. Every loyal workman has learned by precept and tradition to look to his immediate superior for all orders and instructions relating to his work, and he naturally and properly resents any attempt to ignore or belittle his legitimate “boss.”

Second—As the efficiency of the workmen depends to a great extent upon their loyalty to the management, and as that loyalty can be secured and maintained only by a spirit of justice and fair-dealing to all, including officials and workmen, all authority and responsibility should be sharply defined and properly limited, to the end that the business and work may proceed in an orderly and efficient manner; that all officials and workmen may know when they are within their proper limit of rights; and doing their duties without fear of overstepping their due bounds or interfering with the rights and privileges of their fellows.

Nearly all rules are subject to some exceptions, and the above have theirs. The discipline of the shop, or what is sometimes referred to as the *police regulations*, are expected to be enforced by *all officials at all times*.

Two of these exceptions are of such a general nature and application that they are here noted.

First—Any official noticing an infraction of the discipline of the plant may call the attention of the employee offending, without regard to the department in which he works, and require him at once to cease violating the rules.

But the official should, as soon as possible, report the matter to the head of the department in which the offending employee works.

Second—Any official noticing work being wrongly done, or material wasted, or machinery obviously injured, or the safety of the workmen, the building, or the machinery endangered, may peremptorily order the action to cease, and at once report the fact to the head of the department or to the Superintendent, as he may judge proper.

SHOP MEMORANDA	
SERIAL NO. _____	DATE _____
REFERRING TO _____	
To _____	

Official Com-
munications. For

ordinary communications other than General or Special Orders, Production Orders, letters, etc., a written form should be habitually used. The usual form is shown in Fig. 4. These forms are put up in pads of alternate sheets of white and light-tinted paper, the former being perforated at the top so as to be readily torn out while the

[illegible]

Fig. 4. Form for Ordinary Official Communications.
A carbon copy is made on tinted paper.

tinted sheet remains fast at the stub. Both sheets are printed with the same form, and all are serially numbered in pairs of one white and one tinted sheet. Carbon paper is used, the white sheet being written upon and the tinted one receiving the carbon impression. Each official is supplied with these pads, and by their use he always retains a copy of any memorandum or communication he makes to another official or department. The serial numbers are intended to aid in the identification of any memorandum that may have become

somewhat illegible. The use of these blanks saves any misunderstanding that might occur from giving and receiving verbal orders; and serves to prevent errors and mistakes, and to fix the responsibility for their occurrence upon the party in error.

Successful Management. The spirit of shop management should always be a spirit of *leadership*. This cannot usually be obtained unless the manager possesses natural ability as a leader. Successful military chieftains are examples of this condition. They *lead* the men instead of *driving* them, and the result is a condition of enthusiastic loyalty.

It is also quite as necessary that a leader should be a practical man with sound technical training and practical experience in the business which he undertakes to manage. If he is not thus equipped for his duties, the facts soon become apparent to his subordinates, and his reputation suffers accordingly. The workmen lose confidence in his leadership, and lack enthusiasm in the performance of their duties, going about their work in a listless and perfunctory manner that is very detrimental to the efficiency of the plant.

Still another quality necessary in the successful manager, is the ability to judge men and their capacities for various duties. To get always the right man for the position, the machine, or the job, is a valuable trait in any man who is to direct the work of even a moderate-sized establishment. The larger the plant and the more diversified the business carried on in it, the more valuable and indispensable this characteristic will become. The manager who is continually or frequently changing his subordinate officials, and consequently producing changes in the working force, will always find his duties arduous, and will also find it well-nigh impossible to get the plant up to the degree of efficiency that is to be reasonably expected. The volume of output will continually fall below the normal point, and the quality of the work will also deteriorate. The work of management should be a constant upbuilding of the force, and of development and education along the lines of advancement in the special output of the concern. This cannot be carried on if the composition of the force, or the officials who handle it, are in a transition state of change, doubt, and uncertainty.

There is, on the part of many officials having charge of men, a propensity to interfere too much with workmen and their work, and

thus to hinder rather than help them. While it is quite true that every official from the Gang Boss up to the Factory Manager can, at various times, help the workmen in their allotted tasks by timely advice and suggestions, it is also true that this is a matter that can be easily overdone, until it becomes an annoying nuisance and unnecessarily interferes with the men in the discharge of their legitimate duties.

Workmen are quick to discern when suggestions and advice are well meant and instructive, and when they come as a kind of veiled criticism. The official who permits himself to indulge in this sort of dictation soon falls into a practice of *nagging* that is most exasperating to the men. It is a practice that first weakens and then destroys the official's influence with the men, who obey only from necessity. When this condition exists, the working efficiency of the force is at a very low ebb.

On the other hand, really helpful advice and suggestions, made in a cheerful manner and from a quite apparent desire to assist workmen, will usually meet with a quick and loyal response that argues well for the efficiency of the workmen.

Another point on the road to success, is a patient and interested listening to suggestions that workmen have to make, even though it is on trivial matters. It should always be borne in mind that the workman laboring day after day on the same class, and often on the same kind of pieces, of work, is in a position to discern and to study out many minor improvements in tools and methods which are valuable. A kindly hearing accorded him, the adoption of such suggestions as are practical, with some substantial reward for his study, will encourage not only him but other workmen to study their work and endeavor to find better and more efficient ways of doing it. Thus an active and interested spirit of loyalty is brought about that is one of the most valuable assets of the plant.

The successful manager is he who is enabled to *unite* his working force of subordinate officials and workmen in a complete and loyal organization, all working for the common good and for the success and prosperity of the concern. Having gained this condition, the question of efficient and economical manufacturing is practically as well as theoretically solved.

SHOP METHODS AND RECORDS

From the principles that have been advanced in connection with the subjects of Manufacturing and Shop Management, it will be readily seen that the work of the manufacturing plant of the present day is a very complex matter, and there must necessarily be very complete and carefully formulated plans and systems by which all its operations are regulated, and a somewhat elaborate plan of records by which these operations and their results are recorded and filed.

In formulating the necessary plans for the methods and records of a manufacturing establishment, we must first determine the requirements of the work and decide definitely on what we wish to accomplish. In other words, the conditions must be first examined and analyzed, their various factors studied at their true value, and the requirements determined, so that a general plan of operations may be followed.

These methods shall cover the following subjects:

1. The selection and employment of workmen.
2. The methods of keeping the time of all employees.
3. The manner of paying workmen.
4. The ordering of work into the shops.
5. The routine of passing work through the shops.
6. The method of drawing stock and materials.
7. The ways of keeping and issuing tools.

Importance of Records. Each of these methods will become a part of the routine of the establishment, and the operations carried on under it will be proper matters for regular records made from day to day.

Such records are exceedingly valuable as current information, and, when properly filed, become quite as valuable for reference in the future as for use in current operations.

In all improvements in the working routine of manufacturing operations, there should be previous records by which the present performances may be checked and compared. By this arrangement, it is comparatively easy to ascertain whether or not any improvement is being made, and in what direction it is being made. This knowledge will suggest further plans and betterments. Should the records prove that there are losses rather than gains being made, the warning is equally valuable, and we make haste to better results and greater efficiency in the work.

Thus, whether the plans and methods in use are really successful, or quite the reverse, it is of the utmost importance that we should know by prompt and accurate records just what the results are, in order to keep in close touch with the progress of events, and that, when plans do not produce the favorable results expected and desired, the information may be promptly available, the warning be heard, and plans altered or amended until they bring about a successful routine in the manufacturing operations.

Selection and Employment of Workmen. This is an important matter, since it costs money to introduce new men in any business,

APPLICATION CARD				
NAME _____			DATE _____	
ADDRESS _____				
AGE	MARRIED SINGLE	NATIONALITY	WAGES ASKED	EVER EMPLOYED HERE ?
LAST EMPLOYER		KIND OF WORK		WHEN
PREVIOUS EMPLOYER		KIND OF WORK		HAVE BEEN EMPLOYED FOR _____ YEARS
KIND OF WORK WANTED				
REFERENCE				
EMPLOYED				

Fig. 5. Application Card.

and requires from a day or two to several weeks for the new man to become sufficiently accustomed to his work and surroundings to be of the same value as the man who is perfectly familiar with the shop, the routine and methods of work, and the foreman under whom he works.

It is therefore necessary to go about this matter in a methodical manner, and to keep records of:

- (a) All persons making application for employment.
- (b) All persons regularly accepted as employees.
- (c) Individual records of all regular workmen.
- (d) All employees who leave the employment of the company.

To accomplish these results, the official whose duty it is to employ men will fill out, or will have a clerk fill out, an *Application Card* of the form shown in Fig. 5, for each person applying for a position. It will

be noticed that it is important to know whether the applicant has ever been employed in this establishment previous to the present application. If so, his record can be readily referred to for information as to the desirability of employing him again. It is also necessary that the record of his last employer be known, and frequently of the employer previous to the last, as these matters will also be taken into consideration in determining his fitness for the position for which he applies. It is also necessary to know how many years he has been employed in manufacturing establishments, as this fact, taken in consideration

EMPLOYMENT CARD				
NAME _____			DATE _____	
ADDRESS _____				
AGE	MARRIED SINGLE	NATIONALITY	WAGES PER	EVER EMPLOYED HERE ?
LAST EMPLOYER		KIND OF WORK		WHEN
BY WHOM HIRED			KIND OF WORK	
DATE TO BEGIN WORK		FOREMAN		
APPROVED _____				
SUPERINTENDENT _____				

Fig. 6. Employment Card.

with his age, will frequently furnish information upon which to base judgment as to his fitness.

The Application Card, being on file, is available for the use of such foremen or other officials as may be in need of workmen. Should the applicant be decided to be available, after consultation between the official to whom application was made and the foreman desiring to increase his force, the applicant will be sent for, and employed at a rate mutually satisfactory, and an *Employment Card* of the form shown in Fig. 6 filled out. This will repeat some of the information contained on the Application Card; but it is necessary to have two cards in any event, as the information must be filed in separate drawers.

The Employment Card will also give the name of the official employing the man, as well as that of the foreman under whom he is to

work, the kind of work he is to perform, and when he is to commence work. It will also require the approval of the Superintendent or Factory Manager, as the case may be, to make it valid and operative.

The applicant having become one of the regular employees of the concern, a third card is made out for filing in the *List of Employees* drawer. This will be upon the form shown in Fig. 7, and is called a *Service Card*. It will be noticed that each of these three cards is headed with the name and address of the person whom it represents.

The Service Card gives the department in which the employee is to work, the kind of work which he is to do, the date he begins work,

SERVICE CARD				
NAME _____				
ADDRESS _____				
DEPARTMENT _____				
KIND OF WORK _____				
DATE BEGUN	RATE	PAY RAISED	PAY RAISED	PAY RAISED
TRANSFERS _____				
QUIT		REASON _____		

Fig. 7. Service Card.

and his rate of pay. Spaces are also provided for noting the amount and date of any increases in his rate, and for the record of a transfer to another department should he be moved, as is frequently the case with new men who may not be quite adaptable to the kind of work first attempted, but entirely satisfactory at some other class of work.

A space is also provided for noting the date of the workman's leaving the employ of the company, and also for giving the reason for it. This will be valuable information in case the workman should subsequently apply for employment. When an employee leaves the service of the company, his Service Card is removed from the List of Employees drawer, and placed in a fourth drawer labeled *Discharged or Quit*, being held there for future reference.

Individual Record of Standing. In many well-conducted manufacturing establishments, it is customary to keep a record of the standing of the men as rated each month, as a valuable reference in cases of proposed promotion, increases in pay, reliability for special work and positions of responsibility. Various methods of marking the records of the men each month have been tried, but the simplest method is to use the number 100 for perfect, and to divide it as follows:

Good workmanship	50
Punctuality in reporting for work	30
Deportment during working hours	20
Total	100

INDIVIDUAL RECORD							
NAME _____						NO. _____	
YEAR							
MONTH	MARK	MONTH	MARK	MONTH	MARK	MONTH	MARK
JAN.		AUG.		JAN.		AUG.	
FEB.		SEP.		FEB.		SEP.	
MCH.		OCT.		MCH.		OCT.	
APR.		NOV.		APR.		NOV.	
MAY		DEC.		MAY		DEC.	
JUNE		TOTAL		JUNE		TOTAL	
JULY		PER CENT		JULY		PER CENT	

Fig. 8. Individual Record Card.

Demerits are marked off as to workmanship, by the foreman, according to his judgment aided by the Inspector's reports of the work done by the man.

Punctuality is judged by the number of times late, each instance reducing the mark by one unit. As the workman enters the shop twice a day, morning and afternoon, assuming 26 working days in the month, a practical disregard of punctuality soon reduces his record in this respect to zero.

Deportment is judged by the Foreman, who also takes into account occasions on which the workman may have been reported for violating the regulations in this respect.

A *Record Card* is shown in Fig. 8, upon which monthly records are kept. The total for any period, divided by the number of months covered by the record, will give the percentage of a perfect record. This card provides for a record for two years.

If it seems advisable to do so for special reasons, a similar card may be formulated covering the six working days of the week. A year's record in this form may be entered on a card 4 by 6 inches, by arranging the horizontal and vertical ruling for that purpose.

Such a record may be profitably kept of the work of the office force, as well as of the men in the shops. It will be valuable in many ways in judging of the availability of the men for special work, as well as for promotion.

Necessarily such records should be very carefully kept; otherwise there is liable to be serious injury done to the working reputation and integrity, as well as reliability, of the men.

The Employment Agent. In large concerns, an official is regularly appointed as an Employment Agent, and it is his duty to keep the office and the shops supplied with competent men engaged at reasonable wages. He must therefore keep in close and accurate touch with the labor market, for the same reasons that the purchasing agent must know the state of the market for material and supplies. He must know how and where to reach workmen of the different classes whenever he is called upon to furnish them.

While ordinary laborers may nearly always be obtained from the daily applications made at the office, skilled men must be hunted up; and it is not usually easy to find just the man with the qualifications desired.

When men are wanted for positions above the average skilled workmen, the best and most promising will be nearly always distributed among the present employees who are deserving of advancement. To promote one of them, rather than hire some man from outside the organization, is usually good business policy. The man and his abilities are generally well known, while a stranger is always an unknown quantity. The men, being acquainted with the man, will be pleased to see him get the deserved promotion; and it is always wise to consider the popularity of proposed orders affecting the working force. The man himself will feel his added responsibilities much more than an outside man will, and will generally work harder to suc-

ceed in his new position. Therefore it is always best to give the first chance to present employees who have been faithful to the responsibilities thus far placed upon them.

It will be found that in most of the departments there are employees who from one reason or another are doing work quite below their real capacity, hoping that later on there may be better opportunities for the coveted position. The Employment Agent should know the men of the force, and their abilities, so as to take advantage of these conditions. A man may be needed by a foreman in one department who is not aware that in a neighboring department may be just the kind of man he wants. The Employment Agent should know where to find the man at once.

Again, one department may, from the condition of the work, be short of help, and may request the Employment Agent to hire a certain number of men of certain qualifications and abilities. At the same time, there may be another department in which there are more men than can be used to advantage. An arrangement for the temporary or permanent transfer of some of these men will be a great help to both departments, and will have the added advantage of keeping good men permanently employed.

If a workman feels that his employment is permanent, and that there are fair opportunities for advancement, this will be the surest way to hold him faithful and loyal to the interests of the establishment; and the conditions that bring about this condition of mind in him will also draw other good men who will be glad to be counted as among those faithful to a company which appreciates their services and which will look to their interests as they consider those of their employers. The result will be that these men will give their best services, and even be on the alert to further the interests of the employer who has favored them. Thus a strong working organization is built up, which becomes one of the best and most valuable assets of the company.

Time Keeping. As cost of labor is usually greater than any other in the manufacturing plant, and frequently greater than all other factors in the cost of manufacturing, it is very important that the records pertaining to this expense be properly planned and accurately kept.

Various methods have been adopted and used for this purpose. Some of the more prominent plans will be given. They are each

adapted to some certain kind or class of work, and it will often be found that in practice still different forms must be devised in order to meet the existing conditions.

There are three methods of recording the time of employees—namely:

1. By entering the time in a book or upon cards, by a Time-Keeper.
2. By entering the time upon cards by the workman himself.
3. By stamping the time upon cards by the workman in a time-recording clock.

The first of these methods is the oldest form, and has now to a great extent gone out of use.

DATE	ORDER NO.	WORKMAN'S NO.	MACHINE NO.	PATTERN MAKING	PATTERN REPAIRS
				FOUNDRY REPAIRS	EQUIPMENT REPAIRS
DEPT				GENERAL OFFICE	
QUANTITY	DESCRIPTION OF WORK DONE			DRAFTING ROOM	
				TOOL ROOM	
				TIME STARTED	
FOREMAN'S APPROVAL	HOURS	RATE	VALUE	TIME STOPPED	

Fig. 9. Pattern Shop Time Card.

A large majority of the work of a manufacturing plant requires that the time worked by the employees shall be registered twice. That is, one entry shall be of the *day time* (time paid for *by the day*), which necessitates the recording of the total number of hours worked each day; the second entry shall record the *job time* (the time worked upon the different jobs during the day). This second entry is sometimes called *Time Distribution*, since the employee's time is distributed over the different jobs upon which he has worked.

Time-Card Forms. This work is sometimes done by means of time cards as shown in Figs. 9, 10, 11, and 12, which are given as characteristic examples of these methods. These cards are of different tints as a convenient method of recognizing them.

Fig. 9 is yellow, and is used in the Pattern Shop.

Fig. 10 is chocolate-colored, and is used in the Forge Shop.

Fig. 11 is blue, and is used by the Carpenters and Flask Makers.

Fig. 12 is white, and is used in the Machine Shop.

DATE		ORDER NO.		WORKMAN'S NO.	MACHINE NO.	ANNEALING	STRAIGHT'G
						TEMPERING	CUTTING OFF
						CASE HARDENING	CUT BOLTS & TAP NUTS
DEPT						FORGING	SHRINKING
QUANTITY	DESCRIPTION OF WORK DONE					WELDING	TOOL WORK
						TIME STARTED	
FOREMAN'S APPROVAL		HOURS	RATE	VALUE		TIME STOPPED	

Fig. 10. Forge Shop Time Card.

DATE		ORDER NO.		WORKMAN'S NO.	MACHINE NO.	FLASK MAKING	BOXING
						CARPENTERING	SHIPPING
						BUILDING REPAIRS	
DEPT						EQUIPMENT REPAIRS	
QUANTITY	DESCRIPTION OF WORK DONE						
						TIME STARTED	
FOREMAN'S APPROVAL		HOURS	RATE	VALUE		TIME STOPPED	

Fig. 11. Time Card for Carpenters and Flask Makers.

Similar card forms may be devised for any other department of a plant, or for the departments of plants doing entirely different work.

When these cards are used as a means of distributing the time to the various jobs or orders in force in the shop, the *day time*, from which the pay-roll is made up, is usually recorded on a strip of paper in a time clock, the operation being performed by each employee as he passes into the shop morning and afternoon, and when leaving at noon and night. Passing to the clock, the workman swings a lever to his individual number, and presses in a knob, whereby the exact time of the operation is recorded upon a slip of paper, a ribbon, or a disc within the clock.

In other forms of time clock, an individually numbered key is inserted in one of the individually numbered holes, turned around, and

DATE		ORDER NO.		WORKMAN'S NO.	MACHINE NO.	TURNING	FILING AND FITTING	
						PLANING	STRAIGHTG. & CUTTING OFF	
DEPT.						SPLINING	ERECTING	
QUANTITY	DESCRIPTION OF WORK DONE					FLUTING	TAPPING & DRILLING	
						BALANCING	GRINDING	
						MILLING	SCREW MCG	
						CHUCKING	BORING	
						BABBITTING	ASSEMBLING	
						TOOL WORK	TIN-SMITHING	
FOREMAN'S APPROVAL		HOURS	RATE	VALUE	TIME STARTED			
					TIME STOPPED			

Fig. 12. Machine Shop Time Card.

withdrawn. The time is recorded in a manner quite similar to that used in the case just described above.

The four forms for time cards shown are quite similar, the difference being in the list of operations given at the right-hand end of the card.

At the top of the card are spaces for the date, order number, workman's number, and the number of the machine upon which he works (provided the work is done on a machine). In the next space, the name of the department is given. This is followed by spaces for the *quantity*—that is, the number of pieces, feet, or inches of such material as is designated in this way, or the number of pounds in weight of the material. Then comes a brief description of the work.

Opposite each of these is a square in which the workman can indicate the particular kind of work he has been doing, by marking an X. Thus the form shown in Fig. 9 contains the following classes of work—namely, Pattern Making, meaning new pattern work; Pattern Repairs, referring to repairs charged to the job; Foundry Repairs, or repairs to patterns or fixtures the expense of which is to be charged to the Foundry Department; Equipment Repairs, referring to pattern shop equipment; General Office, consisting of small jobs of equipment and maintenance that are better done by a pattern maker than by a carpenter; Drafting Room, similar new work and repairs, such as drafting boards, angles, etc.; Tool Room, similar work chargeable to this department, such as boxes or cases for special tools, and work not entrusted to a carpenter.

Whatever may be the kind of work the employee is engaged upon, he checks it as described; and after the words "Time Started," he notes the hour and minute he begins work. When the job is completed, he notes the time after the words "Time Stopped." The elapsed time, the rate, and the value are filled in by the time clerk.

This card is turned in to the foreman or dropped in a box provided for that purpose, it having been approved by the foreman of the department in which the work is done. It then goes to the time clerk.

As each workman has a card for each different job and for each day, it follows that all the job cards for a single day must aggregate the same amount of time as that indicated on the stamped record within the recording time clock. Discrepancies of this kind are investigated, and the time distribution readjusted until satisfactory, the foreman of the department usually being consulted in the case.

Recording-Clock Time-Cards. Recording time clocks are also made which operate automatically to produce changes in the position of the card dropped into a receptacle provided for the purpose, such, that when a lever is manipulated, not only is the exact hour and minute stamped upon the card, but it is stamped in its proper place upon the card so as to correspond with the proper day of the week and also indicate whether forenoon or afternoon. The horizontal changes of position are made by hand, previous to manipulating the operating lever.

WEEK ENDING _____ 190

NO. _____

NAME _____

DAY		IN	OUT	LOST OR OVERTIME		TOTAL
				IN	OUT	
M	A.M.					
	P.M.					
T	A.M.					
	P.M.					
W	A.M.					
	P.M.					
T	A.M.					
	P.M.					
F	A.M.					
	P.M.					
S	A.M.					
	P.M.					
S	A.M.					
	P.M.					

TOTAL TIME _____ HRS. _____

RATE _____

TOTAL WAGES FOR WEEK \$ _____

Fig. 13. Day Time Card.

THIS SIDE OUT

NO. 105

NAME _____

Fig. 14. Back of Day Time Card.

ORDER NO. _____						
DATE, _____						
EMPLOYEE NO. _____						
MACHINE NO. _____						
ARTICLE. _____						
OPERATION, _____						
DAY		IN	OUT	IN	OUT	TOTAL
F	A.M.					
	P.M.					
S	A.M.					
	P.M.					
S	A.M.					
	P.M.					
M	A.M.					
	P.M.					
T	A.M.					
	P.M.					
W	A.M.					
	P.M.					
T	A.M.					
	P.M.					
TOTAL HOURS _____ MIN. _____						
RATE _____						
AMOUNT _____						

Fig. 15. Job Time Card.

A form for a regular Day Time card is shown in Fig. 13. The days of the week are given, and each divided by horizontal lines into spaces for forenoon and afternoon. Vertically the dividing lines divide spaces for the time the workman comes IN, goes OUT, and for similar records for lost time or overtime, as the case may be.

At the top of the card is the date, generally given as the last day of the week for which time is made up. This is followed by the number and name of the employee. Following the table prepared for the time stampings, is a space for the total time, the rate, and the amount due for the week.

The back of the card is shown in Fig. 14, and is plain except at the top, which is printed in large and plain type "This Side Out," as employees are liable to introduce the card with its face outward. For convenience the employee's number and name are given on this side as well as on the face.

By the above method of time recording, *all* employees will use the regular Day Time card. Such employees as work on the regular production orders, and on work properly chargeable to them, will in addition to the Day Time card use a Job Time card, of the form shown in Fig. 15. This card is provided with spaces at the top for the order number, date, employee's number, machine number, article or piece upon which the work is being done, and the name of the operation that is being performed. The body of the card has the same spaces for the recording stampings. It will be noticed that the card shown in Fig. 13 runs from Monday to Sunday, inclusive. This is the usual form, but in some shops the fiscal week ends on different days of the week. In the job card shown in Fig. 15, it ends on Thursday.

In the use of these job cards, a card is made out for each job or order, without regard to the number of different jobs an employee may have in a day. The aggregate of the time shown on all these cards for a day must aggregate the amount shown on the day time card from which the pay-roll is made up. Thus each card acts as a check on the other, and accuracy is insured to a considerable degree.

When the work for which the job time is issued has been completed, and the card receives its final stamping, it may be turned over to the foreman, who will send it to the Time Clerk. This gives the foreman an opportunity to look it over and correct any mistakes that may have been made. In some shops the card is dropped into a box marked *Job Time Cards—Completed*, whence it is gathered up with others, by the Time Clerk. Coming into the possession of the Time Clerk, he will check it up, together with such others as the workman may have used on the same day, in order to ascertain if the total time on the job cards for the day equals that shown on the day time card.

When the Time Clerk has compared the cards, he will send the job cards to the Cost Clerk, who will enter the amounts in a *Job Time Summary* book of the form shown in Fig. 16. On this blank, the number, name, and rate of each man are written. The succeeding columns are headed with the various current order numbers. Entries are made opposite the man's name, of the pay-roll value of the time he has worked on the various orders or jobs for the day. The total, carried out in the extreme right-hand column, represents his pay for the day. The totals at the bottom of the job columns represent the value of the time spent on each order, for the day. The work is

checked as correct when the sum of all the totals of the right-hand column is exactly equal to the sum of all the totals at the foot of the columns.

The entries in this book are made by quite young clerks, who handle only these job cards and books as their daily tasks, and who become very expert, accurate, and rapid at this work. The totals are carried by the Cost Clerk or one of his assistants to the *cost ledger*, in which the costs of both labor and material, as well as all expense charges, are brought together. Sometimes this work is done upon cards, each one representing an order and containing in brief and condensed form all the charges of whatever kind made against the order.

Methods of Paying Employees. The methods by which pay-rolls are made up and the employees paid, are important; and whatever plans are adopted, they should realize the following desirable requirements:

1. The record of amounts due the men should be absolutely accurate and in accordance with the rates at which the men were employed, subject (a) to such modifications as may be made by reason of properly authorized changes in rate; (b) to such modifications as may be made from week to week by overtime work, or by the operation of methods of "piece work," "premium work," or any of the several plans for rewarding exceptionally efficient work; (c) to such deductions as may properly be made on account of advance payments that have been made upon due authority.

2. The methods of making up the pay-roll and paying the men should secure promptness in this work, so that the pay of the employees may not be held back for an unreasonable length of time pending the necessary clerical work.

3. The methods of payment should be such that no workman can know the amount paid to any other workman.

To accomplish the results desired in the first requirement, if the amounts due the men are made up from the time recorded by the men themselves—that is, in a recording clock—is a comparatively easy task, since it is principally a matter of mathematics, with a strict attention to details.

Changes in rate of pay do not usually take effect until the week following that in which the order is given. This order will be in the form of a request by the foreman of the department in which the workman is employed, stating the reasons for the increase. This is sent to the Superintendent or Factory Manager for approval. If approved, it is then sent to the Pay Clerk, who files the notice for future reference and makes the required change on his pay-roll.

Premium work rates will be made up by the foremen of the departments, and approved by the Superintendent, in smaller shops. In large plants the rates will be made up by a clerk in the Production Department, and approved by the Production Engineer. In either case they will be sent directly to the Pay Clerk.

Advances to men will be made only in special cases, upon a written request from the foreman, stating the reasons and approved by the Superintendent.

The second requirement can be met by having the time cards of the style used in recording clocks (as shown in Figs. 13, 14, and 15). The convenience and rapidity of making up the time of these cards is apparent from the fact that the record of the entire week is contained upon the face of one day time card, lost time being checked only in red ink in the total column at the right, and the sum of the amounts of lost time being subtracted from the regular working time for the week. Thus, if the working time is 55 hours per week, and the lost time was $\frac{1}{2}$ hour one day and $\frac{1}{4}$ hour another, making $\frac{3}{4}$ hour, we subtract that from 55, leaving $54\frac{1}{4}$ hours as the time for the week. This is much more rapidly done than to carry out the total time for each day and add up these totals for the six days of the week.

The *Pay-Roll Sheet* or *Pay-Roll Book* is shown in Fig. 17. This is now frequently made as a loose sheet or such number of sheets as may be necessary to contain all the names, frequently as many as 50 names on the sheet. Upon examination of this printed form, it will be seen that the regular time is divided into *productive* and *non-productive* labor. This is for the purpose of ascertaining what portion of the labor is applied directly upon the product, and what portion is applied indirectly, such as foreman, clerks, general laborers, etc., whose work is classed as non-productive.

The amount of the regular time is computed, and entered in the column headed *Amount*. If there is an amount due in premiums, it is entered in the next column, and the two amounts added in the column headed *Total Amount*. In the next column is entered the amount of any advances that may have been made, which is deducted from the total amount, leaving the net *Amount Due*, which is entered in the next column. This amount is paid over to the employee, who signs his name in the space under *By whom received*, and the operation is complete. The men's numbers are placed at the extreme left hand and

right hand of the form as a matter of convenience in rapidly handling the work of paying off.

When the pay-roll has been completely made up, it is submitted to the Superintendent, who certifies as to its being a correct list of men actually employed, and to the rates of the different men. It is then submitted to the Factory Manager for approval. After the amounts due the men are actually paid and receipted for, the Treasurer certifies the fact, and the pay-roll becomes a voucher for the amount represented on the roll.

Giving Orders for Manufacturing Work. As ordinarily considered, orders are of two general classes, namely:

NO.	PRODUCTION ORDER	DATE
<i>Please execute this order, charging all Labor and Material to above order number.</i>		
<i>Complete the work by</i>	<i>Completed</i>	<i>Approved</i> _____ FACTORY MANAGER

Fig. 18. Production Order.

1. *Production Orders*, by which the production departments are set to work manufacturing some regular or special product which is to be sold to customers.

2. *Plant Orders*. These orders relate to the repairs and maintenance of the grounds, buildings, and equipment of the plant, and to new additions to and alterations of the same.

Both of these classes originate with the Factory Manager, who receives instructions as to all important orders from the General Manager of the company, who will authorize and keep in touch, not only with the production of the plant, but in a general way with all changes, improvements, and maintenance expenses of the establishment.

Production Orders. Fig. 18 shows the form of a regular production order. This card or blank is made of such dimensions as the kind of manufacturing business to which it pertains may require. It is customary to use a card 4 by 6 inches; but if such is to be written upon the central space in order to describe the work properly, it should be somewhat larger. The principal features of this form are spaces for the title of the card, the order number, and date. At the bottom is given the date when the work is expected to be completed, and the date of its actual completion. These dates are important as

FOR ORDER NO.	SUB-PRODUCTION ORDER _____ DEPT.	DATE
<i>Please execute the work described below and charge all labor and material to the above order number.</i>		
<i>When completed deliver to _____ Dept.</i>		
<i>Complete the work by</i>	<i>Completed</i>	_____ FOREMAN

Fig. 19. Sub-Production Order.

a matter of reference in considering the promptness and efficiency of the departments where the work has been done.

The work to be done is briefly described in the central portion, together with such references to sets of drawings, etc., as may be necessary to render the terms of the order indisputably certain. This order is signed by the Factory Manager and sent to the Superintendent. In a large concern it is sent to the Superintendent of Production or the Production Engineer, according to the particular manner of the organization of the official force.

In any event the order is turned over to the official having charge of production, who will make out *Sub-Production* orders (Fig. 19) for each department in which the particular work described upon the orders is to be done. A time limit is given for the completion of

the work, and a space provided for the actual date of completion. They are not signed when issued, but are dated and signed by the foreman when the work is completed.

Plant Orders. As has been described, plant orders are those necessary for the changes, improvements, and maintenance of the plant and equipment. In some establishments there are two series of orders, namely: (a) those for improvements and maintenance of the *plant* proper—that is, grounds and buildings; and (b) improvements and maintenance of *equipment*. This is a very proper and natural division. These accounts may be subdivided to a very great extent, but not with corresponding value.

Plant orders are usually issued by the Superintendent (or General Superintendent, in a large plant), and are returnable to him, as

NO.	PLANT ORDER	DATE
	DEPT	
Please execute the work described below and charge all labor and material on the back of this card and return it to me.		
To be completed by	Completed	SUP'T

Fig. 20. Plant Order.

will be seen upon reference to the form shown in Fig. 20. This order is usually directed to a certain department. If more than one department is involved in the work, a separate order is issued to each. The general form of the order is the same as in the two preceding ones, the instructions being changed to suit the nature of the case.

On the back of this order is a form for entering the cost of material and labor, as shown in Fig. 21. The dates upon which each item (or group of items) of material is furnished, are given, as are also the dates for the various items of labor, although the work of an entire

week may be entered upon a single line. On the second half of the card, space is provided for the totals of both material and labor cost; also such general expenses in the form of a percentage or such other apportionment as may be authorized, are entered.

By this method the order for the work, and a summary of the expense of executing the order, are contained upon the same card, which is very convenient for future reference and comparison.

Storing and Issuing Stock and Materials. The orders having been put in force in the shop, the next step is to obtain the necessary material or stock with which to do the work.

All purchased stock, material, and stores are turned over to the

DATE	MATERIAL	VALUE	DATE	LABOR	HRS	VALUE
				TOTAL LABOR		
				TOTAL MATERIAL		
				EXPENSES		
	TOTAL MATERIAL			TOTAL COST		

Fig. 21. Back of Plant Order Shown in Fig. 20. For entering cost of material and labor.

General Storekeeper, whose duty it is to classify them, store them properly, and issue them only on properly authorized requisitions. A large portion of his stock he obtains by making requisitions upon the Purchasing Agent.

To account properly for the receipts and issues of this stock so as always to have on hand what is wanted, and at the same time to avoid carrying an unnecessarily large stock of any of the articles in store, he uses a *Stock Ledger Card* of the form shown in Fig. 22. This gives the name of the article listed, and its dimensions, weight, etc. At the right of this are entered the maximum and the minimum quantities to be kept in stock. Whenever the stock on hand is re-

[illegible]

Fig. 22. Stock Ledger Card. Same form is printed also on back of card.

REQ. NO. _____		REQUISITION		DATE _____	
STORE KEEPER: <i>Please issue for use on Order No. _____ the following Material.</i>					
QUAN.	DESCRIPTION				
DATE ISSUED _____		DEPARTMENT _____		FOREMAN _____	
				STORE KEEPER _____	

Fig. 23. Form of Requisition.

Carbon copies of the entries are made on the Invoice form, Fig. 24.

duced to near the minimum quantity, the Purchasing Agent is requested to order enough more to bring the quantity up to the maximum.

In making requisitions upon the Purchasing Agent, the Storekeeper must take into consideration the length of time necessary to obtain the article wanted. Wire nails, wood screws, and such articles can usually be obtained in 24 hours, while brass tubing may take

three weeks. Iron castings can be had in two days, while steel castings will frequently require six weeks.

When articles are *received in stores*, the date and quantity will be entered under the heading *Received*, and other quantities added to these as received. Articles issued will be charged under the heading *Issued*, giving the date and amount. The quantity on hand may be quickly ascertained by adding the quantities received and the quantities issued, and subtracting the sum of the issues from the sum of the receipts.

As most articles are purchased in considerable quantities and issued in small lots, there will be few entries of receipts and a large

REQ NO. _____		INVOICE		DATE _____	
I have issued to apply on Order No. _____ the following Material.					
QUAN.	DESCRIPTION			RATE	VALUE
DATE ISSUED _____		DEPARTMENT _____		FOREMAN _____	
				STORE KEEPER _____	

Fig. 24. Form of Invoice.

Entries are made by means of carbon paper, duplicating those made on the Requisition form, Fig. 23.

number of entries of issues; therefore the greater portion of the card is devoted to records of issues. The card is printed with the same form on both sides; and when the spaces on the first side are filled, the account is balanced, and the results carried to the opposite side.

These cards are kept in filing drawers, where they are located in alphabetical order by the names of the articles they represent.

A foreman, on receipt of a regularly numbered and authorized production order or sub-production order, is thereby authorized to make requisition for such stock and material as may be necessary to use in the execution of the order. This he will do by the use of the

Requisition shown in Fig. 23, entering the order number and date, and specifying the quantities and descriptions of the articles required. Ordinarily each requisition will contain but one article or class of articles. At the bottom of the requisition, the foreman will enter the name of his department and his own signature.

These requisition blanks are made up in pads (the form shown in Fig. 23), of white paper alternating with tinted paper on which is the *Invoice* form shown in Fig. 24. This latter form has its ruling and other principal features identical with the form of the requisition, so that by the use of carbon paper the foreman makes a duplicate on the Invoice blank, of the order number and date, the articles required, the name of his department, and his own signature.

TO CREDIT OF ORDER NO. _____		MATERIAL RETURNED		DATE _____	
STORE KEEPER <i>The following Material is returned as not necessary for use on the above order.</i>					
QUAN.	DESCRIPTION			RATE	VALUE
RECEIVED THE ABOVE _____		_____ FOREMAN. _____ DEPT.			
STORE KEEPER: _____					

Fig. 25. Returned Material Card.

When the Storekeeper issues the articles, he first enters upon the requisition blank the date issued, and then passes it to his assistant, who notes the issue on the *Stock Ledger Card*, and then places it on file. The Storekeeper will enter on the invoice the rate and value of the articles issued, and the date of issue, and will sign it under the foreman's signature. He will send it, with the articles issued, to the foreman, who will in turn make it a part of his report of material used.

When the work on an order is completed, such serviceable stock and material as may remain will be returned to the Storekeeper,

together with a *Returned Material Card* of the form shown in Fig. 25. The Storekeeper will enter upon it the value of the material returned, credit it to the department from which it came, and sign the receipt in the lower left-hand corner. The card will then be returned to the foreman as his authority for deducting the amount from the material account in the order in question.

Follow-Up Methods for Tracing Orders in the Shop. The Sub-Production orders having been put into the departments, the first one will order the material for starting the work. For instance, the first step may be upon iron castings. Theoretically all stock and material come from the Store-Room. Therefore we might say that upon a strict construction of this general rule the castings should be furnished by the Foundry and sent to the Store-Room, from which they might be drawn upon requisitions the same as any other material. Practically this would be not only a troublesome but an expensive method, requiring a great deal of unnecessary handling and transportation. The problem is much more practically solved by considering the Foundry as one of the manufacturing departments receiving its raw material (namely, pig iron) through store-room accounts, and thus "constructively" from the store-room, while physically it is in the foundry yard. This answers the demands of a theoretical as well as a practical view of the case.

Therefore the first sub-production order will go to the iron foundry, which will make the castings and deliver them to such departments as are required to do the first work upon them, as directed upon the order. The sub-production order which this department has received, directs to what department they shall be sent when completed; and so on, until they have gone through the last department and are sent to the Finished Parts Store-Room.

This arrangement is all right as far as it goes. If every man attended strictly to his business and pushed work along as rapidly as possible, and every foreman sent his work along to the next department as soon as his department had completed its work, this plan *might* work fairly well. Unfortunately, however, these conditions seldom or never exist; and there must be ways and means devised to keep the work moving and to be able to *trace* and *locate* the work upon any order at any time when information is desired upon it or its state of progress.

To accomplish this, there is a *Transfer Office*, located as conveniently as may be for all departments, and serving as a sort of "clearing house" for all departments in transacting inter-departmental business so far as it relates to the transfer of the work in progress. By this method, departments send all their work by way of the Transfer Office, where proper records are kept of all such transfers, so that at any moment the Transfer Clerk can locate any piece of work in progress in the plant.

The operation of this method is as follows: The sub-production orders are sent to the Transfer Clerk, who fills out two *Transfer Cards*,

as shown in Fig. 26, one of which he sends with the order to the first department that is to do work on the order, and the other he retains. This card provides spaces for the various departments, which are designated by numbers. Following these are spaces for entering the dates of transfers, the entries being made with a rubber stamp. After these spaces are columns for the number of pieces of work received and the number of pieces delivered.

When the first department has finished its work, the number of pieces is entered in the column headed *Pieces Delivered*, and the work and the card sent to the Transfer Office.

The duplicate transfer card

that was retained by the Transfer Clerk was filed in a compartment in a *Transfer Case* corresponding to the department where the work began. He stamps the date of transfer on both cards, entering the number of pieces on his own, and sends the work on its way to the next department, together with the transfer card. His own card he re-

ORDER NO.		TRANSFER CARD	
DEPT NO.	DATE OF TRANSFER	PIECES RECEIVED	PIECES DELIVERED
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
INSP			
PASSED AS CORRECT			

Fig. 26. Transfer Card.

moves from the compartment representing the first department, and places it in a compartment representing the department to which he has now sent the work.

Subsequent transfers are made in the same manner, small lots of work actually being sent to the Transfer Office, but large lots or heavy and bulky work being sent directly from one department to the next, but under the personal direction of the Transfer Clerk or his assistant.

When the parts are completed and ready for inspection, the Inspector is notified; and upon inspecting the parts previous to their being sent to the Finished Parts Store-Room, he enters the results of his work in the space at the bottom of the card that has accompanied the work in its progress through the departments.

The Transfer Clerk's *card tray* is shown in Fig. 27, and is made with compartments of sufficient dimensions to hold the number of cards expected to be on file in anyone department at the same time. The cards are filed in numerical order. In a large concern the usual card-index method of guide cards is used, so as to render the work of finding the right card when wanted, easy and expeditious.

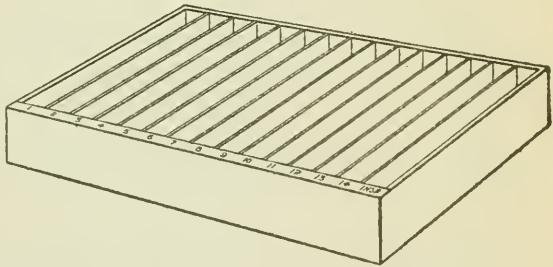


Fig. 27. Transfer Clerk's Card Tray.

Tool-Room Methods. A large number of small tools such as drills, taps, reamers, and the like, and also numerous jigs and fixtures of various kinds, are drawn daily from the Tool Room and returned there after being used. The problem of keeping track of these valuable tools, of knowing where to locate every tool that has been issued, and getting them back promptly after they have been used, is an important one.

The simplest method of doing this is by the use of small brass checks bearing the individual numbers of the men. For this purpose a *Tool Check Board*, as shown in Fig. 28, is provided. This is lined off in small square or oblong spaces, the number of spaces equaling

1	1	11	11	21	21	31	31	41	41	51	51	61	61	71	71
2	2	12	12	22	22	32	32	42	42	52	52	62	62	72	72
3	3	13	13	23	23	33	33	43	43	53	53	63	63	73	73
4	4	14	14	24	24	34	34	44	44	54	54	64	64	74	74
5	5	15	15	25	25	35	35	45	45	55	55	65	65	75	75
6	6	16	16	26	26	36	36	46	46	56	56	66	66	76	76
7	7	17	17	27	27	37	37	47	47	57	57	67	67	77	77
8	8	18	18	28	28	38	38	48	48	58	58	68	68	78	78
9	9	19	19	29	29	39	39	49	49	59	59	69	69	79	79
10	10	20	20	30	30	40	40	50	50	60	60	70	70	80	80

Fig. 28. Tool Check Board.

or somewhat exceeding the number of men employed in the departments served by the Tool Room. At the top of each of these spaces is the name of one of the men; and beneath the name two pins project about an inch from the face of the board. Under each pin is the man's individual number. Two forms of brass checks are used, a circular disc of $\frac{7}{8}$ inch diameter, and a rectangular one $\frac{1}{2}$ inch by $1\frac{1}{4}$ inches. Each check has a hole by which it may be hung on the pins, and each bears the individual number of the man, the checks being used in pairs of one circular and one rectangular check.

All tools are kept upon shelves, divided for individual tools or, in some similar manner; and in front of each tool is a pin similar to those on the board, upon which checks may be hung.

The operation of this method is as follows: the circular checks (there are usually twelve of them) are issued to the men of corresponding numbers. The rectangular checks are held upon the left-hand pins under the men's names. When a man goes to the Tool Room for a tool, or sends a boy for one, he presents one of his circular checks. This the Tool Keeper hangs on the right-hand pin under the man's name. He also removes one of the twelve rectangular checks, and hangs it on the pin in front of the space from which the tool was taken. If the workman sends for another tool, another circular check is added to the first one, and another rectangular check removed from the board.

It will be seen that there must always be twelve checks on the board under each name, counting both rectangular and circular ones. The absence of a tool from a shelf is accounted for by the rectangular check hung on the pin in place of it, and the number of this check shows what man has the tool. The number of circular checks on the board shows how many tools each man has in his possession.

The result of this method is that tools can be issued and taken back very rapidly; and accurate and positive records are very quickly made, without the use of a book, card, slip, or writing of any kind.

At the end of the week, *all* tools are turned in to the Tool Room, thus enabling the Tool Keeper to check them up and rectify any possible errors that may have been made during the preceding week. On Monday morning, such tools as are needed are re-issued.

ADVERTISING AND SALES ORGANIZATION

INTRODUCTION

The purpose of this article is not to teach either the art of advertising nor the science of salesmanship but rather only to exhibit and to explain the technique of recognized methods found successful in well established advertising and sales departments; in particular, to discuss the machinery of the department—its record-keeping systems.

Opinions differ as to the proper place in a business organization of advertising and sales—whether they should be handled by, and considered as, two separate and distinct departmental organizations, or one. Both plans have their champions.

Whether we call it an *advertising* or a *sales* department, the results sought—the reasons for the existence of the department—are the same. To *sell goods* is the aim of the organization, be its head an advertising manager or a sales manager

Advertising has been defined to be *printed salesmanship*; yet there is a well-defined dividing line between the work of the advertising man and the salesman. The advertising man seeks to impress the name of the house and the name and quality of its product, on the public mind; to create interest; to arouse curiosity; to stimulate desire; to attract people to the store—in a mercantile business. The salesman seeks to turn that interest, curiosity, desire, into action—the action of purchase.

The advertising man introduces the possible customer; the salesman makes the sale. But in some businesses, the advertising man goes one step farther and actually makes the sale—as in advertising intended to secure direct orders, by mail. Also, the salesman, when the customer has been introduced, makes use of other forms of advertising, to further stimulate desire and assist in making the sale.

No matter at what angle the subject is viewed, it is seen that the advertising man and the salesman are very dependent on each other. We prefer, therefore, to consider the sales and advertising departments

as of equal importance; both subordinate parts of the sales division but working in perfect harmony.

The salesman knows his goods, their strong and weak points, the classes of people to whom they will appeal. He should know, also, all about his competitor's goods, and in what respects they are excelled by his own. In short, he is the one who can give the best selling points to the advertising man.

Successful advertising is not confined to the use of printers' ink. The most successful advertising is that which increases business at least cost. Hence, for a business which purposes a permanent establishment, gaining the confidence and good will of customers and possible customers is of the first importance. A justly satisfied customer is just as truly an advertisement as anything in print.

When a selling campaign is contemplated, the plans should be worked out by the salesman and the advertising man. The two must work together and neither should undertake a new campaign, without first consulting the other.

The claim is sometimes made that the function of advertising is fulfilled when the inquiry has been received; that it is then a question of salesmanship—but where does advertising end and salesmanship begin? If sales are made by mail, the salesman supplements his salesmanship with catalogs, booklets, circulars, letters—all as surely advertising as salesmanship; in the store, he displays his goods attractively, which is a most effective form of advertising. And so, in the battle for business, victories are won by supplementing advertising with salesmanship, and salesmanship with advertising—combining the two for results.

Occasionally, a man is found who combines the creative ability of the advertising man with the executive ability of the sales manager. When such a man is found, it is safe to place him in charge of the sales division, giving him full control of both advertising and sales. He probably will require the services of a man to attend to the details of the advertising department, but such an arrangement makes the sales manager alone responsible.

Most large enterprises, however, require the services of one man to handle the advertising. For this reason the head of this department is referred to as the advertising manager, and the department as an advertising department.

SYSTEMS AND RECORDS

In addition to the technical knowledge of the printing art—type, engraving, and paper—and of advertising media, which the successful advertising manager requires, he should have the faculty of applying common-sense system in the handling of his work. An elaborate system, which oversteps legitimate bounds and enters the realm of red tape, is to be deplored, but the advertising man must have a system of records which will show at all times what he is doing, what results he is getting, exactly where he stands.

Any discussion of systems must be more or less theoretical, even when written by an experienced advertising man. The system that works perfectly in one office may fit in no other, therefore the systems described in this book are to be taken as examples of what other advertising men have adopted. From them the student will be able to devise a practical system for a particular enterprise. At the start, the system probably will be too complicated; experience alone will tell the advertising manager where to eliminate, where to simplify, where to add to make it fit.

Advertising Information. The advertising manager collects a vast amount of information for future use. Every time he picks up a newspaper or magazine his eye scans the pages for ideas, while mingling with the crowds or walking alone, he notes what would be to the unobserving but trifling incidents, all of which can be worked into copy. If he is systematic he clips and makes memoranda of all this information, preserving it for use when needed.

How to preserve it in such shape that it can be located quickly is something of a problem. Probably the oldest methods of preserving clippings and memoranda is to use a scrapbook, and paste in all clippings. The scrapbook, however, is never satisfactory for this purpose; it is not a flexible system.

Clippings should be so filed that any single clipping can be removed without disturbing the others. The vertical file is largely used as a receptacle for clippings, but is not entirely satisfactory unless envelopes take the place of folders. With folders, clippings are liable to be lost through the open ends.

An old and satisfactory method is to file clippings in envelopes. Unless the clippings are of large size—like entire pages from trade

papers—it is not necessary to use envelopes of a size to fit a vertical file. A size that will fit one of the smaller files—about 7" × 9"—will be found more satisfactory.

The most satisfactory method of indexing is by subject. An envelope is used for each subject about which clippings are to be made, all clippings and memoranda being filed in the proper subject envelope. The envelopes are indexed alphabetically, according to

Fig. 1. Special Box Envelope for Clippings and Advertising Copy

subjects, and a list of contents should be recorded on the outside of each envelope. A form of record is shown in Fig. 1, while Fig. 2 shows the manner of filing and indexing.

Clippings are made use of by the advertising man chiefly in the preparation of copy, and are much more convenient to handle if filed in envelopes than when pasted in scrapbooks. Instead of an unwieldy book to handle, an envelope is taken from the file and the desired clipping selected.

Sometimes the work of the advertising man is of a nature which requires the preservation of catalogs, booklets, and all sorts of printed

matter issued by competitors. When the accumulation of such matter is sufficient, it is best to install a complete catalog filing system, such as is used in the purchasing department.

Designs and Cuts. A class of valuable property which accumulates rapidly in an advertising department, consists of advertising designs and cuts. This property is not given the care deserved when its value is considered.

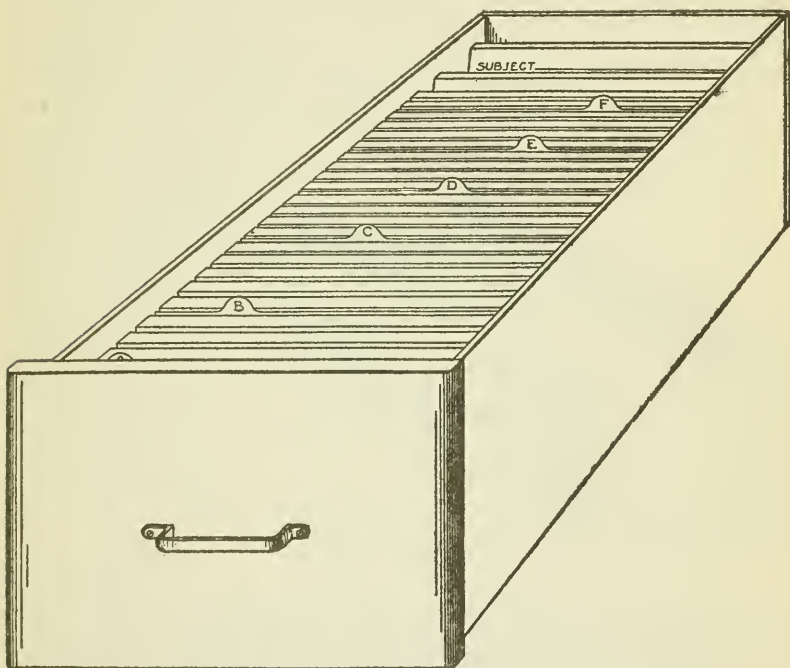


Fig. 2. File Drawer Showing How Clippings are Filed by Subject

Artists are paid for designs but too often after the engravings are made, they are stored in drawers, on shelves, or in any convenient place to get them out of the way. Little attempt is made to so file and index them that each can be quickly located.

An old design may be available for use at any time—an engraving of different size than the original, may be needed, or a slight alteration may produce a complete change in the design at much less cost than making a new one. Engravings are expensive and accumulate with amazing rapidity. Suppose a retailer does daily advertising

and uses a new cut each day; at the end of one year he owns three hundred and sixty-five original engravings, and probably an equal number of electrotypes. Any of these may be available for use another time, either in newspapers, catalogs, or circulars.

The national advertiser, using magazines and trade papers, may accumulate a less number of engravings than the retailer, but owing to the class of engraving required and the number of duplicates needed, his investment is even greater.

The natural supposition would be that advertisers would give this property proper care, filing under correct classifications, indexed for ready reference. But experience proves the contrary. Every

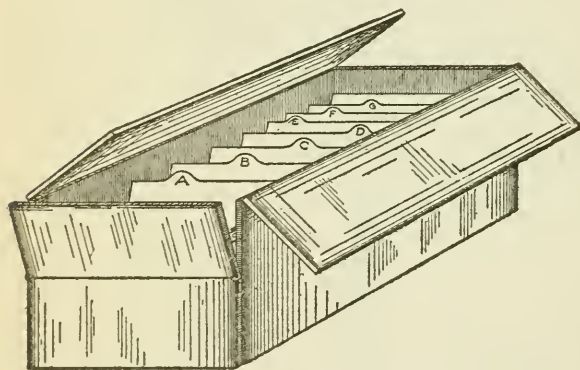


Fig. 3. Box File for Drawings and Photographs

printing and publishing office that has been running five years has an accumulation of cuts belonging to advertisers, which represent an investment of thousands of dollars.

Occasionally an advertiser is found who knows exactly where each cut has been sent and calls for it when needed, but a big majority of these cuts are never called for and finally are sold by the printer for what they will bring, as old metal.

Now the property used by the advertising department should receive the same care as any other; a dollar invested in designs and engravings should be regarded as a dollar's worth. And if common sense be applied in devising a system, they can be cared for with as little trouble as any other property carried in stock.

A very satisfactory method of filing designs is to use a file constructed on the principle of the vertical file. Stock sizes of files are too small. Designs cannot be folded and the file should be large enough to take in the largest designs used. An elaborate file is not

necessary; a box constructed along the lines of the one shown in Fig. 3, will answer the purpose. The chief requirements are to have the designs filed in one place, where they can be found, and to keep them clean. Any carpenter can build such a file, while any cabinet man will construct one of more elaborate design to match the furniture of the office.

Designs may be filed alphabetically by subjects, or numbered and filed numerically. As a rule, the alphabetical method will be found more satisfactory.

Engravings are best filed in a cut cabinet of the usual style. This is a cabinet of shallow drawers, just deep enough to hold type-

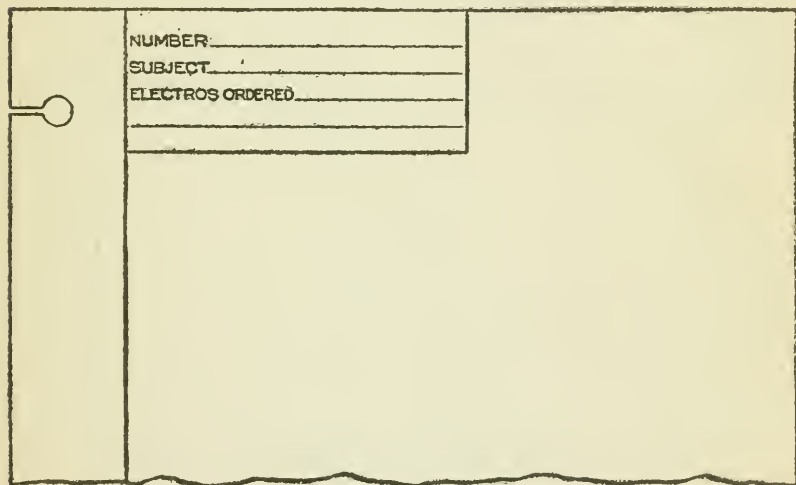


Fig. 4. Loose-leaf Scrap Book Sheet for Preserving Proofs of Engravings

high cuts. All engravings should be numbered and electrotypes stamped with the same numbers as the originals. The cuts can then be filed by numbers, and each drawer labeled to show the numbers of the cuts it contains.

Cuts should be numbered consecutively, and when an engraving is made in a new size it will take the next number, regardless of the fact that an engraving of the same design has already been made. For instance, if five sizes of engravings are made from one design, there will be five cut numbers. When the cut is numbered, it is a good plan to stamp the number on the back of the design; then

ferred to very readily. This file should be looked through frequently for it is very necessary to follow-up the cuts closely. If the cut is

190
<p>Gentlemen;</p> <p style="text-align: center;">We hereby acknowledge receipt of the following cuts:</p>
<p>Yours Truly</p> <hr style="width: 20%; margin: auto;"/>

Fig. 7. Postal Card Receipt for Cuts

DRAWING OR CUT SENT OUT		
SUBJECT _____		
PHOTO _____		
DRAWING _____		
HALF TONE	ZINC	ELECTRO
SENT TO _____		
PURPOSE _____		
DATE SENT _____		
SHOULD BE RETURNED BY _____		
RETURN REQUESTED _____		

Fig. 8. Tracer Card for Drawings and Cuts

not expected to be returned, it is of course unnecessary to make this tracer record.

Copy Proofs. A complete file of proofs of all copy is a necessity in every advertising department. If requested to do so, any publisher will furnish several proofs of the ad, and at least three proofs should be kept on file. Every piece of copy and every circular or other printed matter should bear an identifying mark of some kind. This usually is a number. These numbers should

be registered consecutively either in a book or on cards, and opposite each number should be the title of the copy, booklet, or catalog. It is well to run different series of numbers for advertising copy and other literature. Numbers 1 to 5,000 might be used for copy, and 5,001 to 10,000 for printed matter. The same scheme can be used to good advantage for office blanks of all kinds, giving each a form number but using a third series of numbers.

Proofs of ads and copies of all printed matter and blanks should be filed alphabetically by subject or title. For proofs, the envelope scheme, as described for clippings, can be used. Envelopes of this size—7"×9"—will also accommodate copies of most circulars, blanks, and booklets, but if the sizes average larger a vertical file drawer, with large envelopes, can be used. The vertical file will also accommodate catalogs. These files being permanent, the expense of elaborate cabinets can be dispensed with by substituting the cheaper transfer files supplied by all manufacturers of such equipment.

Each time a piece of advertising copy is re-set in a different size, it should be given a new number. New numbers should also be given each circular, booklet, or blank when it is re-printed, provided there is the slightest change in the copy.

On each envelope, the copy number should be entered, and if the copy takes several numbers, all should be entered. Copy bearing the title "Your Chance" may be set in three sizes—full page, No. 640; half page, No. 641; and quarter page, No. 645; all proofs will be filed in one envelope and the three numbers will be entered on the outside.

The register of numbers and the file of proofs provide for the identification of any copy; if the title of any piece of copy is wanted, the number being known, reference to the register gives it; or if the title is known, reference to the file gives the number.

PRINTING ORDERS AND TRACERS

Great care is necessary in issuing and following up orders for printing; every detail must be watched closely if satisfactory results are to be secured. In the majority of offices the advertising manager, or a man under him, attends to all details of ordering printing. Large

concerns find that it pays to employ an experienced man for this work alone. To a concern whose printing bills amount to several hundred dollars a month, a man who will give close attention to every detail of the work, from seeing that he gets the stock specified to checking bills for overcharges, can make his services worth a good salary.

In printing, as in everything else, the personality of the house should stand out—a typographical style should be established. This is accomplished much more quickly if every detail of the printing is in the hands of one man.

There are concerns in which publicity and sales work must be subdivided to such an extent that the sales manager has all printed matter prepared under his direct supervision; while the advertising manager is responsible for the preparation and placing of the copy. In one such concern, which has come under the writer's observation, copy for printing is turned over to a man entirely outside of the sales division. The theory is that the outside man will watch the interest of the house, in the matter of price, more closely than the man who prepares, and perhaps is to use, the copy.

This theory may have some foundation in certain quarters; probably there are some otherwise competent advertising men who are occasionally outwitted by the printer; but it is also true that the buyer of printing, who places his orders on the basis of price alone, frequently loses more in quality than he saves in cost. The man who is to use a booklet or folder is really the best judge of its worth—what he can *afford* to pay for the kind of work he wants; he knows best its possible value as a revenue producer. He should be competent to supervise the placing of the orders, but without exception *all* printing orders should be placed by the same man.

No matter by whom placed, the printing order should specify every detail; or if it is not on the order blank, there should be a specification sheet. The specifications would be something like those shown in the order form, Fig. 9.

This order should be made in triplicate. The original and duplicate will go to the printer, the duplicate to be signed and returned as an acknowledgment of the order, while the triplicate is filed in a tickler under the date when the acknowledgment should be received—usually the following day.

Order No. 464

Date _____

To _____

Ship } to _____
Deliver }
the following

Date Wanted _____

MUST HAVE OR RETURN ORDER

SPECIFICATIONS

Size _____ Number of Pages _____

Type - Display Lines _____

" - Body _____

Ink- Cover _____ Inside _____

Paper _____

Cover Stock _____

Binding _____

Illustrations { herewith
to come

HENRY SNOW COMPANY

By _____

Received above order, will send proofs _____
deliver job _____

Signed _____

Department _____ Account _____

Fig. 9. Triplicate Form of Order for Printing

When the duplicate comes back from the printer it is placed in the tickler, under the date when proofs may be expected. At the same time the triplicate is removed from the tickler and placed in a loose-leaf binder, all copies being filed in numerical sequence. It will be noted that, at the bottom of the triplicate, the department or account to be charged is entered, this record being made when the order is placed.

When proofs are returned, the duplicate is moved ahead to the promised date of delivery. In this way the follow-up for orders is made practically automatic, all orders filed under any date being removed for attention on that day.

Little difficulty is experienced in getting printers to put the order number on the invoice, when requested to do so. The return of two or three invoices to a printer who neglects this will have the desired effect. With the numbers on the invoices it is a very simple matter to find the copy of the order, which will show just what was ordered and for what department.

Records of Printing. A record of all printed matter received and its disposition is quite as important as for any other class of property. Unless properly stored and correctly recorded, there is likely to be a great waste of stock. Many large concerns lose much more through waste in this direction than the salary of a competent stock clerk. Not all concerns will require a stock clerk for this purpose alone, but in every office the stock of printed matter should be placed in charge of one person—a clerk, perhaps, who has other duties. That person should be made responsible for the stock, just as the stores clerk is made responsible for the property in the factory storeroom.

When printing is received, it should be first checked against the order copy on file, and then put in the storeroom, or sent to the department where it is to be used if not to go into stock. In the storage of printing, a very necessary requirement is that it be kept clean, otherwise, in the case of matter carried in stock for a long period, there may be as much as a ten per cent loss through spoilage.

It is best to have all printing put up in packages of specified sizes, depending on the quantities used. The printer will usually make the size of his packages fit the needs of the customer, if requested to do so. On the outside of each package, the name and quantity of

DESCRIPTION_

[illegible]

the contents should be recorded. When possible a sample should be attached.

An extensive advertiser will require a good-sized room for the storage of printing, while for some concerns a small cabinet will answer the purpose. In storing, the packages should be arranged according to name, maintaining the alphabetical order so far as possible. A numerical arrangement, by form numbers, is sometimes recommended, but any filing scheme which makes it necessary to refer to a supplementary index to find a number before the article itself can be located is not favored.

A low stock limit should be set for every piece of printing that is used regularly and likely to be re-ordered. One of the most simple methods of handling this is to make one package of the quantity set, so arranging the stock that it will be the last package reached. On the outside a label is pasted—or a rubber stamp can be used—printed as follows:

This package must not be opened without first notifying the office. Failure to observe this rule will be considered sufficient cause for instant dismissal.

After the storage plan has been arranged then comes the question of stock records. A simple record which will show quantities received, issued, and on hand is needed. The form shown in Fig. 10 is used by a manufacturer who supplies dealers, who are his customers, with catalogs, booklets, and other forms of printing. The same form is adapted for use by a concern selling through branches or agencies, while for another business, the form would be modified, eliminating records of shipments.

This form is printed on a sheet punched for a loose-leaf binder. A sheet is used for each catalog, folder, booklet, circular, mailing card, or other piece of printing, the name being written at the top of the sheet. The sheets are filed in alphabetical order, indexed with suitably tabbed index sheets.

When printing is received and the order checked, the name and description is entered at the head of one of these sheets—except in the case of a re-order, when a sheet will be found in the binder. The date, quantity, from whom received, and the cost are next recorded in the proper columns. If it is a new piece of printed matter,

the quantity received is also entered in the *on hand* column; if a reprint, the quantity is added to the stock on hand and the total extended.

For printing that is to be sent to a dealer, an order is entered on the form shown in Fig. 11. This gives detailed instructions for shipping, with the quantity and description of the matter to be sent. The order is made in duplicate. The original goes to the shipping

○	VIA	NAME					
		ADDRESS					
		DATE	REQUESTED BY				
	REMARKS	QUAN.	DESCRIPTION			QUAN.	DATE
○							
○							
○							

Fig. 11. Shipping Order for Printing to be Sent to a Dealer

clerk, while the duplicate, on a blank sheet, is kept in the office as a follow-up on the shipping clerk.

As shipments are made, the shipping clerk enters in the columns provided for that purpose, the quantity sent and the date. When the entire order is filled, it is returned to the office. Every day the duplicates are examined and inquiry is made of the shipping clerk regarding any orders for which the originals have not been returned. When the original is received, the duplicate is destroyed.

Shipments are next entered on the stock sheets, while the original orders are filed in a binder, alphabetically by dealers' names. Reference to this file shows exactly what advertising matter has been sent each dealer.

PERIODICAL ADVERTISING

When the question of periodical advertising is taken up, the most important of all publicity fields is entered. From the country weekly, through the entire list of city dailies, scientific and literary weeklies and monthlies, popular magazines, class magazines, and trade papers for every vocation, religious papers, and reviews, periodicals can be selected which will reach any class or cover any territory. With the thousands of publications to select from, the advertising manager needs to know which ones will best reach the people he wants to reach; what papers have the largest circulations; which are most popular among a given class or in a certain territory. He must be posted on rates and discounts, that he may cover his territory economically. And added to this, he must have a perfect checking system, that he may know to a certainty what returns each and every publication is bringing him. Such a system may show him, for example, that the magazine with a circulation of a million and an advertising rate of \$5.00 a line, brings orders at a less cost than another in which he is paying but \$2.00 a line—or *vice versâ*. Perhaps the cost in both is within the amount he is prepared to pay, but he must *know* what it costs, that he may know where to increase and where to curtail the appropriations.

Rate Cards. Supposing the business to have been just started, or one that has done no advertising—and this is the most satisfactory premise from which to work, in laying out a general system for the department—among the first duties of the advertising manager will be to secure information about mediums, and the chief source of information will be the publications themselves, as they will respond promptly to requests for rate cards.

If the advertising manager gets rate cards from a hundred publications, he will find probably forty or fifty different shapes, sizes, and styles. Several spasmodic attempts have been made to induce publishers to adopt a uniform size for rate cards, with but little success. In the effort to produce something striking, the convenience of the advertiser is very likely to be overlooked. One publisher will use a 3"×5" card—the most convenient size; another, in order to better display the artistic ideas of his own copy department, uses a card

6"×9"; a book of rules is issued by another; the result is a miscellaneous collection that does not fit any size of file made.

To insure uniformity in their files, advertising agencies have been obliged to design rate sheets or cards which they send to the publisher to be filled in. Some large advertisers now follow the same plan, requesting publishers to enter rates on special forms.

But whether or not he uses a special form, every advertiser should have his own file of rate cards—even if the information is written on a blank card. The special information needed is shown in Fig. 12. This can be on a card, or if preferred, a sheet to be filed in a loose-leaf

PUBLICATION _____		
PUBLISHER _____		
PAGE RATE		LINE RATE
SPACE DISC.	CASH DISC.	AG'CY DISC.
HEIGHT PAGE	NO. CCLS.	COL. WIDTH
LINES to PAGE		
HALFTONE SCREEN		USE MATRICES
CLAIMED CIRCULATION		CLASS
TERRITORY COVERED		

Fig. 12. Index Card for a Record of Advertising Rates

binder can be used. The cards or sheets should be indexed alphabetically, under the names of the publications.

If full and satisfactory information is not obtained from the publishers, it is well to supplement it with information from an advertising agency. The successful agency, through observation on behalf of a number of clients, usually has more dependable information about a given publication than can be obtained by any one advertiser.

All sources of information should be made use of; if the article advertised is sold to the trade, much valuable information can be secured from local dealers. In planning a daily paper campaign for a certain commodity, a letter was sent to each dealer contiguous

to each city asking what morning and evening papers had the largest sale in his town; at what hour each was received; and the general trend of local political sentiment. This brought a gratifying response, and helped in the selection of papers which covered, not only the cities, but the small towns. Another advertiser secured some very satisfactory reports from his traveling salesmen, relative to the value of local papers in which he contemplated advertising.

Advertising Contracts. Contracts for advertising are usually made once a year, in advance. Most publishers of magazines and newspapers grant certain space discounts, based on the space used within one year, and in many cases, to secure these discounts, contracts must be made in advance. Some trade paper publishers allow space discounts, others maintain flat rates, all of which must be considered in making contracts.

Practically all magazines, most newspapers, and some trade papers, allow special discounts or commissions to advertising agencies—though in the case of newspapers, in many cities, this discount applies only to *foreign* advertising, or that originating outside of the city of publication.

An increasing number of advertisers are placing contracts for space through the agencies, and relying largely on the advice of the agency in the selection of mediums. Since the business of the largest and most successful advertisers is placed through the agencies, it would seem to be a safe rule to follow. But because an agency handles the orders, the shrewd advertising manager will not relax in his watchfulness of his employer's interests. He will maintain just as complete a rate file, and watch the bills as closely as though dealing direct with publishers.

The experienced advertiser plans his campaigns well in advance, making annual appropriations for all advertising. This enables the advertising manager to select mediums, determine the amount to be used in each class, and prepare suitable copy for the different publications.

This question of the preparation of copy for series of ads applies especially to national campaigns and local advertising of a general publicity nature. The advertising manager of a department store is obliged to prepare newspaper copy daily, and at best can plan his copy not more than two or three days in advance. In a national

campaign in which advertising is for direct returns, copy must be *tried out* and its character changed frequently. This does not mean that, in any case, the same copy should be run indefinitely; it should be changed in practically every issue. While following the general style adopted for the house, there should be something new in every issue—something that will attract and cause the reader to look for the ad each month.

When the amount of the appropriation has been decided, a schedule of the mediums to be used should be made. This schedule

○	SCHEDULE for MONTH of _____									
	PUBS.	PREVIOUS				SPACE	COST	TOTAL		
	INO.	SALES	COST	ARTICLES						
○										
○										
○										

Fig. 13. Schedule of Monthly Insertions in Periodicals

should include the space to be used in each publication. Indeed, the schedule of mediums and space that it is desired to use, often determines the appropriation. For a general publicity campaign, this schedule can be made absolute, but when the advertising is for direct returns, it should be elastic. Mediums which do not pay after a fair trial, should be dropped, and there should be room in the schedule for mediums not at first included. Changed conditions may make it advisable to add a medium which previously has been unprofitable.

American School of Correspondence

Advertising Order

No. _____ Chicago, Ill., _____ 19 _____

Publishers _____

Please insert enclosed advertisement in space of _____ { lines }
inches } Copy No. _____
page }

Key No. _____ in your _____ issue of _____

This advertisement must **NOT BE REPEATED** without our order

This space to be billed to

at _____

Terms: (In case of question **HOLD ORDER** and write us at once)

Position { requested } _____ Conditions _____
ordered } see below

POSITIONS

- A. Top of column and wholly alongside pure reading matter or first following and wholly alongside of pure reading matter.
- B. Right-hand page, outside column.
- C. Front of Magazine.
- D. Back of Magazine.
- E. Schools and Colleges.
- F. As stipulated in contract.
- G. No two of our ads to appear on same or opposite pages. Must not appear on back of any other "ad" containing a coupon or Cor. School "ad."
- M. Classified.

CONDITIONS

- 1. Advertisements must have our O. K. before insertion. Bill will not be approved otherwise, unless proof waived by us.
- 2. Key number of electrotpe (or copy, if set matter) must correspond with Key number above before inserting.
- 3. Send _____ proofs.

THIS ORDER can be **DISCONTINUED** or **CANCELLED** at any time by paying for **SPACE USED** at the rates in force at the date of order. **ADDITIONAL SPACE** pro rata. **REBATE** to be given if total space or insertions in one year earn additional **DISCOUNTS**. **WE RESERVE THE RIGHT** to change copy at any time.

IMPORTANT

It is a condition of this order that **OUR NAME** and address be immediately placed upon your mailing list so that we will receive your publication regularly. This will insure prompt settlement of your bill.

Original Cut No. _____

Electrotpe No. _____

Delivered by { mail } (If not
express } in perfect condition hold order
and send for new cut.)

Yours truly,

American School of Correspondence

By _____

Fig. 14. Order Blank Used for Ordering Insertions of Advertising Copy

The advertiser who advertises for direct inquiries or orders, usually finds it necessary to revise his schedule monthly, basing each schedule on previous results. That he may act intelligently, he must have an exact record of past results. A convenient form for the monthly schedule is shown in Fig. 13, which is printed on a sheet punched for filing in a loose-leaf binder.

Previous results from each publication on each class of goods is shown in respect to inquires, amount of sales, and cost of the advertising. In the three columns at the right of the space for each ad, cost of each, and total cost are shown.

Separate sheets are used for popular magazines, trade papers, and newspapers. When copy has been sent, the sheets are placed in a loose-leaf binder, the full schedule for each month being in one place where it can be readily referred to.

Orders for Insertion. When an agency is employed, the agency usually sends copy and orders for insertion to the publisher; though some advertisers prefer to send copy direct, leaving the agency to send orders for insertion. It usually happens, too, that some orders are sent direct instead of through the agency. One large advertiser follows the practice of sending orders direct to those publishers who do not allow agency commissions, all others going through the agency.

If orders are to be sent direct, a special advertising order blank should be provided. This order should specify to the last detail the conditions of the order. A blank, which is self-explanatory, is shown in Fig. 14. The order is made in duplicate and the copy is filed under the name of the publication.

Checking Returns. A necessity to the advertising department is an efficient system of checking and recording returns from advertising. Without a checking system on which he can depend, the advertising manager is spending his employer's money blindly—he does not know what he is getting for it.

The first requirement in devising a system is a method of *keying* ads, that inquiries or orders may be identified and credited to the proper mediums. Keying systems there are without number—to describe all of them would require a book the size of this one—but those most commonly used are adaptations in one form or another, of the idea of changing the address.

PUBLICATION													KEY NO.		SUBJECT																				
190	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	TOTAL	ADV.	AV/COST	
JAN.																																			
FEB.																																			
MARCH																																			
APRIL																																			
MAY																																			
JUNE																																			
JULY																																			
AUG.																																			
SEPT.																																			
OCT.																																			
NOV.																																			
DEC.																																			
																														TOTAL INQUIRIES	TOTAL COST	COST PER INQUIRY			

Fig. 15. Card Used for a Record of Inquiries from a Given Publication

One of the oldest methods is to use a department number or letter in the address, changing the number in each publication in which the ad appears—the address in one would be *Dept. A*; in another, *Dept. B*. This method is used successfully by some advertisers, but it has its objections. Most people realize that no concern is so large that an inquiry will not reach the proper department. If, for example, an inquiry in response to a beef extract ad, addressed to Swift & Co., failed to reach the beef extract department, it would indicate a very lax system of handling correspondence.

Changing street numbers, room numbers, or postoffice box numbers, is another common method of keying. This can be operated successfully by notifying the local postal authorities that all mail is to be delivered at one number, regardless of the address.

An adaptation of the number key, which can be used to advantage for a small number of publications, is a combination of numbers representing publications and dates. First, the publications are numbered, these numbers being used as the first part of the address. To the publication number is added the number of the month or week of publication. To illustrate:

Suppose that the *Technical World* is No. 5 on the list and the ad is run in October. The key number would be 510—5 standing for the publication and 10 for the month. All replies with that address would be credited to the *Technical World* for October.

In using this system it is necessary to use some figure—usually 0—for a repeater to avoid confusion; No. 112 might mean publication No. 1, month No. 12, or publication No. 11, month No. 2. By adding a naught after the publication No., confusion is avoided—1102 would mean No. 11, 2nd month, 10012 would indicate No. 10, 12th month. The system can be further varied by using N., S., E., and W., or by substituting Ave. for St. or *vice versa*.

When readers are requested to ask for catalogs or other printed matter, the numbers by which these are known to the reader can be used for the key—as bulletin *A*, bulletin *B*, etc.

For either direct inquiries or orders one of the most popular and satisfactory keying systems is to use a coupon, indicating the

RECORD of SALES										PUBLICATION				SUBJECT ADV.									
JAN.		FEB.		MAR.		APRIL		MAY		JUNE		JULY		AUG.		SEPT.		OCT.		NOV.		DEC.	
DAY	ORD.	AMT.	ORD.	AMT.	ORD.	AMT.	ORD.	AMT.	ORD.	AMT.	ORD.	AMT.	ORD.	AMT.	ORD.	AMT.	ORD.	AMT.	ORD.	AMT.	ORD.	AMT.	
1																							
2																							
3																							
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28																							
29																							
30																							
31																							
TOTALS																							
GRAND TOTAL		ORDERS		TOTAL INQS.		SALES		TOTAL SALES		AV. SALE		TOTAL ADV.		COST PER SALE									

Fig. 16. Reverse of Checking Card Used for a Record of Sales

publication and month in the coupon—*T W 11* printed in small type in the coupon would mean *Technical World* for November.

A coupon to be filled in offers the reader a convenient means of answering the ad, and this has a tendency to induce a larger number of replies. Few people will fail to use the coupon or the address given. A certain very large advertiser, who uses the coupon, states that less than one per cent of his replies are without means of identification; either the coupon is used or the name of the magazine is mentioned.

To make their checking systems as nearly perfect as possible, some advertisers write to all readers who fail to use the key, requesting them to state where the ad was seen. Some enclose a postal for the reply, others enclose a printed slip, on which the magazines used are listed, to be checked and returned.

A reasonable expense is justified to find out where replies do come from, for it is as much to the advertiser's interest to continue the use of all profitable mediums as to drop the unprofitable ones. Many of the most successful advertisers, however, consider it safe to distribute unidentified replies pro rata, basing the distribution on the number of keyed replies—that is, if 30 per cent of all keyed replies can be traced to the *Technical World*, that magazine will be credited with 30 per cent of all unidentified replies.

When the mail is opened all replies should be sorted by key numbers, inquiries and orders separated. Then the total number of inquiries, and number and amount of orders from each publication should be ascertained and credited.

For recording credits a form, similar to the one shown in Fig. 15, should be used. This may be on a card or in loose leaf. A card is used for each ad, in each publication—that is, if there are seven insertions in the *Technical World* in one year, seven record cards will be used—one for each insertion. These cards or sheets are to be filed under the names of the publications.

On the back of the card the form shown in Fig. 16, is printed. This provides for a daily record of sales resulting from the inquiries recorded on the face, or from the ad if it calls for direct orders. These forms supply all necessary data for a complete statistical record for each publication. Too much time would be required to look through all of these cards every time information is desired about a given pub-

able, and it is possible to obtain records which will, at least, indicate the increase in sales due to advertising.

Results of retail advertising must be measured by comparison; if a department store advertises handkerchiefs as a leader for Tuesday, *all* handkerchief sales for that day would not be due to the advertising, but it is legitimate to credit advertising with any increase over normal sales. If correct sales records are kept, it will be possible to tell the exact amount of handkerchief sales for that and every other day in the year.

○	CITY _____ STATE _____ AGENCY _____											
	SHIP CARDS TO _____ VIA _____											
	DATE OF CONTRACT _____ EXPIRES _____											
	MO.	COPY NO.	SUBJECT	SIZE CARD	CARS ON CONTRACT	EXTRA SERVICE	TOTAL SHIPPED	DATE SHIPPED	GROSS COST	NET CASH		
○	Jan.											
	Feb.											
	March											
	April											
	May											
	June											
	July											
	Aug.											
	Sep.											
○	Oct.											
	Nov.											
	Dec.											
○	Total											

Fig. 19. Detailed Record of the Shipment of Street Car Cards

A close check on returns can also be obtained by requiring each sales person to put a distinguishing mark of some kind on sales for advertised articles. Proofs of the day's ads, showing the articles advertised in the department, should be mounted on cards and hung in each department, that the sales person may know when advertised goods are sold. If made large enough, the card can be ruled for a tally of sales, and each sale of advertised goods tallied.

There should be an office record showing the results of advertising for each department. In comparing these records sales alone

cannot be used, for the weather, and unusual events calculated to increase the crowds in town, must be considered. To-day's sales of an advertised article, with unfavorable weather conditions, probably will not equal the sales of the same article one year ago, which was circus day. If daily records, similar to that provided in the form shown in Fig. 18, are kept, they will soon become very valuable to the advertising department of any retail store.

TOTAL COST							
DETAILS of CONTRACT	DATE INV.	MO.	GROSS		NET		CREDITS
		Jan.					
		Feb.					
		March					
		April					
		May					
		June					
		July					
		Aug.					
		Sep.					
		Oct.					
		Nov.					
		Dec.					
		Total					

Fig. 20. Record of Street Car Contract and Net Costs

STREET CAR ADVERTISING

Street car advertising is of a general publicity nature. It is intended, not to secure direct orders, but to influence sales by keeping the name of a commodity before the public. It is local in its effects, influencing sales only in the cities in which the cards are used.

Street car advertising is now controlled by a small number of agencies, who own the space in the cars in the different cities throughout the country. Through one of these agencies, contracts can be made for space in street cars in any city in the country.

The rate for street car advertising is based primarily on population, the *circulation* consisting of the number of passengers carried. When the advertiser buys space, he pays for having his card appear in a specified number of cars, for a stated period. As a rule, the rate is for monthly periods, with special discounts on yearly contracts, and cards are changed each month. On certain contracts the agency will include extra service, without additional cost, by running cards in a number of extra cars, which are put on during the rush hours.

If desired, the agency will design the copy and print the cards, making an additional charge for the service. Many street car advertisers prefer, however, to furnish their own cards. This is probably the better plan for advertisers who maintain efficient copy departments.

Although this book is not intended to teach the technical details of the art of preparing copy, it may not be out of place to suggest that copy for street car cards is in a class by itself. Experienced advertisers have found that to use wordy arguments on a street car card is a mistake. The card must catch the eye, for it is expected to arrest the attention but a moment at best. A picture that tells the story at a glance, large type, and plenty of color seem to meet with most favor.

The special records required for street car advertising are simple, consisting of records of contracts. A form for such a record is shown in Fig. 19. This can be on a card or loose leaf. The form is headed with the name of the city and instructions for shipping. Below the heading, is a monthly record of the copy No., subject of the ad, size of cards, and other necessary data including the gross and net cost. On the reverse, Fig. 20, is a detailed record of the contract, and a record of total costs. These sheets are filed in a binder or in a card tray, indexed by cities.

OUTDOOR ADVERTISING

Outdoor advertising is the term used to describe all such forms of publicity as bill boards, signs, painted or printed posters, etc. This is strictly general publicity advertising.

Like street car advertising, outdoor advertising is thoroughly organized, and the sale of space is practically controlled by a few

companies. Local bill posters, who control the boards, or *stands*, as they are technically known, have their own national organization which standardizes the practices of the business, regulates rates, and insures the advertiser against paying for service that he does not receive.

Rates for this class of advertising are based on population and the relative desirability of the location. In a city of 500,000 population, a stand which 150,000 people pass daily is worth more than one in another section of the city, which is seen but by 50,000 people.

The advertiser pays for his space on the basis of the number of stands used, size of posters or signs, relative number of *down town* or *preferred position* stands, and length of service. Rates are figured for periods of one week, two weeks, one month, and longer.

The records of outdoor advertising are very similar to those of street car advertising. By changing the column headings of Fig. 19 from cars to *stands*, the form shown answers every requirement.

No outdoor or street car advertising campaign of national scope should be undertaken until provision has been made to take care of the business. The *trade* must be covered first; when the ad appears on the boards the goods must be on the dealers' shelves.

Indeed, this is a most important factor in any publicity campaign intended to create a demand for goods sold through the retailer. Every possible preparation must be made in advance to secure a wide distribution so that the consumer attracted by the ad will find it easy to buy the goods. Making known the name of an article in a locality where it is not carried in stock, or without telling the consumer where it can be bought, can result in little advantage to the manufacturer.

WHERE ADVERTISING AND SALESMANSHIP MEET

A very effective method of producing sales—most largely used in campaigns intended to secure direct orders, by mail—is the use of circulars, booklets, and form letters. This literature is advertising, but to use it to secure the best results requires the application of a certain amount of salesmanship. The advertising man may prepare an attractive piece of printed matter, well-written and containing convincing arguments, but unless judiciously used, the time and study put into its preparation is wasted.

A large quantity of such literature, distributed indiscriminately, would probably bring some business, but the best results are obtainable only when its use is concentrated; when it is confined to a particular class and followed up in a systematic manner. Knowing his goods and the class of people who use them, the salesman is naturally the best judge of where and when to use those forms of advertising which he turns into salesmanship by mail. The discussion of systems of record and methods of use of this form of literature is taken up under the head of the *sales department*.

SALES DEPARTMENT

The sales department proper is in charge of a sales manager, who has immediate authority over his subordinates and is responsible for the results secured by his department. No position in the business organization carries with it greater responsibilities, for on the sales manager rests the burden of marketing the goods at a profit.

Without entering into a discussion of the science of salesmanship, the writer takes the liberty of suggesting some necessary qualifications of a sales manager.

He must be thoroughly imbued with the importance of his work and have an abiding faith in his ability to get the very best results out of his department. He must be enthusiastic and capable of imparting his enthusiasm to others.

He must *know* the goods, be they pianos or investment bonds. He must believe in his goods and his house. Unless he feels that his house is the best on earth and offers goods second to none, he cannot produce the full measure of results of which he is capable.

He must know the goods of his competitor and what methods his competitors are using. He must be willing to abandon his own pet schemes when they fail to produce, or to adopt a new plan, even though originated by another.

He must be a close student of human nature with the capacity for judging men. He must be a salesman in every sense else he is in no position to judge the qualifications of those in his employ.

On the other hand, the sales manager should be given full control of his department, until he proves to be incompetent. While other members of the organization will be consulted before a new campaign is launched, when the plans have been approved he should be permitted to *try them out* without interference. Assuming that he is a competent man in the first place, he will be the first to detect the weak points and set about to find a way to strengthen them.

Many a sales manager has had his usefulness impaired by the interference of others before he has had an opportunity to give a selling plan a fair trial. Selling campaigns have been discontinued before the turning point was reached, because someone higher in authority lacked faith; when they would have proved successful, if carried out as originally planned.

This is not an argument for a stubborn adherence to plans, regardless of consequence—any sales committee is liable to make errors—but before the campaign is launched the extent to which it shall be tried out should be decided. If the sales manager is given an appropriation of \$500.00, or \$5,000.00, for a trial, he can work intelligently, but if told to go ahead, and then ordered to stop before his campaign is well under way, he should not be charged with a failure.

Another thing that the sales manager should control is the question of salaries paid to the salesmen. We maintain that the amount of salary paid to a salesman is of no moment provided he is a profitable man. A \$10,000.00 man who sells goods at a cost of 10% is more profitable than the \$5,000.00 man who sells at 10%, or even 9%, because of the greater volumes of his business. The management should gauge the sales department by net costs, not by the amount of individual salaries.

BRANCHES OF SALES DEPARTMENT

The sales department is logically divided into two branches—mail order and personal salesmanship. The mail order branch is that part of the organization which has to do with the promotion of sales by mail. The personal salesmanship branch is the division which makes sales by personal contact with the customer.

The work of the mail order branch is conducted by correspond-

ents—letter salesmen—assisted by clerks to look after the routine of the department.

The personal salesmanship branch is conducted, primarily, by salesmen who visit the customers and personally sell goods. In many lines, the personal salesmanship branch is supplemented by agencies, who come in direct contact with the customer.

There are businesses in which the dealers, who carry the goods in stock, are assisted by both the mail order and personal salesmanship branches in making the sale to the customer. An example is the piano business in which inquiries are referred to dealers, the dealer and prospective customer followed up by mail, and the traveling salesman sent to assist the dealer to close the sale.

THE MAIL ORDER BRANCH

When the mail order branch is spoken of it does not refer necessarily to an exclusive mail order business, but the term is used to identify the department in any concern which uses the mails to promote sales. While there are many exclusive mail order houses, employing no personal salesmen, there are practically no exclusively personal salesmanship houses. There may be no effort to secure direct orders in this manner, but the mails are used to influence sales. Extensive circularizing campaigns are conducted for the purpose of making known to the consumer the merits of certain commodities, which are sold only through dealers. In the sense here used, such campaigns are within the province of the mail order branch.

Form Letters. An important factor in the conduct of the mail order branch, is the use of form letters. In a campaign intended to secure direct orders, the form letter takes the place of the personal salesman.

The form letter presupposes a uniformity of conditions. It is written to appeal to certain desires of the recipient; its arguments are based on the supposition that the same desire exists in the minds of all to whom it is sent, and that the same arguments will cause its readers, as a class, to yield to those desires.

The result of a form letter campaign depends on the extent to which the letter fulfills its mission in adapting itself to the conditions of the class to which it is sent—its adaptability to the mentality and

environment of its readers. The same argument will not appeal to the mechanic, farmer, merchant, and banker.

The failure of most form letter campaigns can be traced to one of two causes—failure to adapt the letter to existing conditions, or lack of judgment in selecting a list for a trial. The goods offered may be used by plumbers and lawyers, but the same letter should not be expected to *pull* with both classes. Like the selling talk of the personal salesman, the letter should be changed for each class.

Other conditions, also, must be studied. Iowa may have harvested a bumper crop, while Kansas suffers from a drought; mills in the Pittsburg district may be running overtime, while Buffalo is in the midst of local labor disturbances. All of these local conditions influence the results of the letter campaign.

As to lists used for trials, the more usual mistake is in the use of too small a list. Some sales managers, who have mailing lists of from 25,000 to 100,000 names, profess to try out a letter with a list of 300 to 500 names. A list of this size is not sufficient to give an actual test of the pulling power of any letter. Some of the most successful letter salesmen give it from their experience that the very smallest list from which a safe test can be made is 1,000 names.

Keying Form Letters. It is just as necessary to *key* form letters as to key magazine ads. The key makes it possible to trace results. The question of keying is most important when a series of letters is used—which is true in most campaigns—for it then becomes necessary to check the returns from each letter in the series. When one letter only is sent to a given list, the replies received from that list can be safely credited to the letter.

There are several methods of keying form letters, among which are the following: the reader may be requested to address his reply to a certain department; he may be offered a sample or some novelty; or the letter may be written in the first person singular so that replies will naturally be addressed to the writer.

The writer confesses to a preference for the last named method. The average mail order buyer likes to feel that he is receiving personal attention—that there is someone in the house to whom he can write, instead of addressing the house. A personal touch can be put into the letter signed by an individual that is impossible in a letter signed in the name of the house.

There are those who contend that only the name of the house should be used, that the name of an individual should never be signed to a letter, and who have printed on their letter heads the phrase: "*Address all communications to the company, not to individuals.*"

While it is perfectly proper to use every legitimate means to keep the name of the house before the public, there is a good deal of senseless fear that the prestige of the house will be usurped by the individual. In some quarters this fear has resulted in the adoption of ridiculously extreme rules and regulations. One incident in the personal experience of the writer will serve to illustrate the point. Having occasion to request a favor from a certain manufacturer—a favor which would be granted, if at all, by the advertising manager—and knowing the advertising manager personally, he addressed the request to him, using his title in connection with the name of the firm. Somewhat surprising was the following letter, received a few days later:

DEAR SIR:

We have your favor of the 12th, addressed to our Mr. ———, and your request will receive the attention of the proper individual.

Our method of handling correspondence is such that, to insure proper attention, all communications should be addressed to the company. We request that you observe this rule in the future.

Yours truly,

No more reason for the fear that the house will be injured by the personality of one of its correspondents can be seen, than that the personality of the salesman will have greater weight with customers than the reputation of the house. If the personality of an employe—be he a personal salesman or a correspondent—is worth anything in a business way, the benefit accrues to the house that employs him.

There is one other objection to the use of the name of the writer of the letter, and it comes from the United States Statute making it a criminal offense to open mail addressed to another. But this objection can be easily overcome; any employe whose name is used will sign an order authorizing the opening of letters addressed in his name, unless marked *personal*.

[illegible]

Fig. 22. Record of Sales Resulting from Form Letters

Form Letter Records. A copy of each form letter written should be kept permanently. The copies should be filed in a manner that will make it easy to refer to them. For this purpose an arch file or binder is most satisfactory. The letters themselves may be punched for the file, or the loose-leaf scrapbook idea can be adopted, pasting several letters on one leaf.

Each letter should be given a number for the purpose of identification, whether or not it appears on the letter itself. The copies should be arranged in the file in numerical order, but where there are several departments or divisions using form letters, they should be divided by departmental indexes.

It is also well to keep a second copy of the letter with a sample of the enclosures, as the enclosures may have an important bearing on the results. These copies may be preserved in the manner suggested for filing copies of ads and printed matter.

When a form letter is written, a record form, as shown in Fig. 21, should be started. This may be on a card or loose leaf; the latter is preferred on account of the larger space for the record. The heading shows the No. of the letter, the subject, name of the writer, its No. in the series to which it belongs—first, second, or third—the enclosures, and the names of any special lists used. The body of the form provides for a record of letters mailed during the year, with a monthly record of total costs.

The sheets are arranged in the order of letter Nos., in a card file or a loose-leaf binder.

The reverse of this record form is ruled, as shown in Fig. 22, to provide a record of sales resulting from the use of the letter. Sales can be entered daily or weekly, but the daily record is recommended.

The methods of obtaining the details for these records is described later.

Follow-up Systems. A necessary and very important factor in the success of a business transacted through the mails, is the follow-up system. And in a business in which sales are made by personal salesmen, the follow-up is used for certain purposes, and is as important as though used to secure orders.

To follow-up is to keep after, to keep in touch with, and to keep a certain subject before certain individuals. Whether used to secure

orders or make collections, the idea of the follow-up is the same, though it is better known as a system for promoting sales.

The follow-up arises from the same necessity that compels the personal salesman to call on a prospective customer more than once—often many times—before the first order is secured, and continue to call to hold his trade. The follow-up simply makes use of letters and other literature to take the place of the personal salesman.

Mechanically, the follow-up system is a *system* or *method* that insures the sending of the right literature at the right time. Letters—

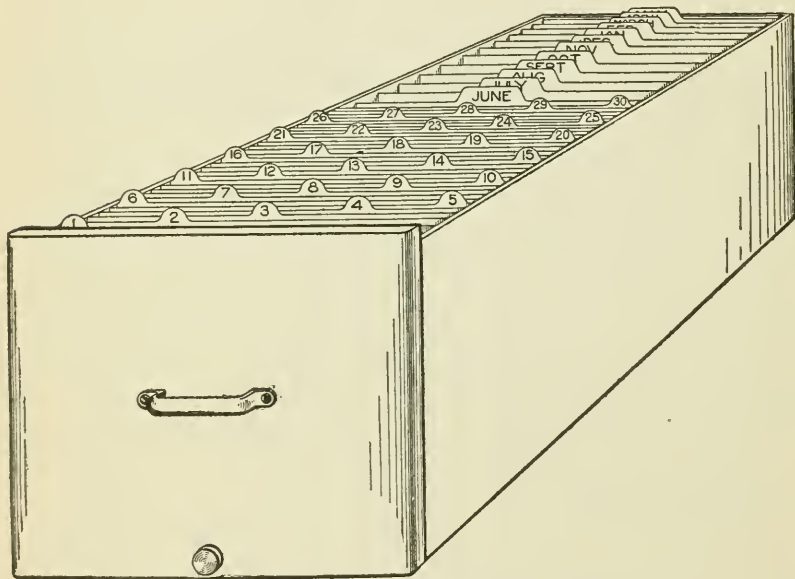


Fig. 23. Vertical File Drawer Equipped as a Tickler

both form and special—catalogs, booklets, folders, circulars, and mailing cards are all used in the process of following up the prospective purchaser; the automatic method of showing when each piece of literature in the series should be sent, is the follow-up system itself.

Tickler Method. The simplest method of handling the follow-up system is to use a tickler in which to file memoranda or correspondence by dates. A tickler consists of a file equipped with a set of indexes numbered from 1 to 31 to represent the days of the month,

and 12 indexes printed with the name of the month. The monthly indexes are arranged in order, and the daily indexes are placed in front of the monthly indexes in numerical sequence. The file may be a vertical correspondence file, a card tray, or a flat desk file.

In using the tickler for a correspondence follow-up, letters are filed back of the index representing the day on which the subject is to receive attention. Each day the letters filed behind that day's index are removed, and after receiving attention, are filed ahead to the next follow-up date.

If it is desired to have a letter come up for attention in another than the current month, the day of the month is noted on the letter, and it is placed back of the monthly index. On the first of the month, the index for the previous month is placed at the back of the file, which brings the current month's index to the front. All papers that have been filed back of the monthly index are then distributed by dates. A correspondence file drawer, equipped as a tickler, is shown in Fig. 23.

For a small amount of correspondence, the use of the tickler is very satisfactory, and it is also used to excellent advantage for keeping track of the many matters that require attention at a future date. A tickler should be included in the equipment of *every* office, no matter what the line of business.

Card Follow-up. For most extensive follow-up systems, the card index is used, for the reason that a card is easy to handle, occupies but little space, and can be adapted to any classification desired. A card is used for each prospective customer, or name on the list to be followed up, and should bear the name and address and a brief history of the efforts made to secure an order, or accomplish the object of the follow-up.

In operating a follow-up system—especially if the object is to sell goods—the correspondent should have before him a history of the efforts previously made to secure an order. He should know what letters and other literature have been mailed just as the personal salesman knows what arguments he has used. When form letters have been used it is not necessary to have copies of the letters in each case, but they should be identified by their numbers, or otherwise. Records of these letters, by date and number, can be made on a card, so that the card itself will give the correspondent a complete history

of the case. The correspondence—letters from the prospective customer and copies of special letters to him—can then be filed in the regular way, and is accessible at all times.

The oldest method of operating the card follow-up is to use the tickler index in a card file. The follow-up is operated in exactly the same manner as described for the correspondence file tickler, except that the cards are filed ahead instead of the original correspondence.

A typical follow-up card is shown in Fig. 24. At the head of the card is the name and address of the prospective customer, followed by the credit rating, the business, and the source from which the name

<i>Name</i>						<i>Rating</i>			
<i>Address</i>									
<i>Business</i>						<i>Source</i>			
<i>Form Letters and Literature</i>						<i>Special Letters</i>			
<i>No.</i>	<i>Date</i>	<i>File</i>	<i>No.</i>	<i>Date</i>	<i>File</i>	<i>Date</i>	<i>File</i>	<i>Date</i>	<i>File</i>

Fig. 24. Card Used for Follow-up

was obtained—whether from advertising, a special list, or from a traveling salesman. The body of the card is ruled for a record of letters mailed, form and special letters separated. When a letter is sent the No. and date—if a form letter—is entered, and in the file column is noted the number of days the card is to be filed ahead—as 10 days or 30 days. If at the time specified, the next form letter in the series is to be sent, provided no response has been received, the No. should be noted on the next blank line in the No. column, so that the letter can be sent by a clerk, without consulting the salesman.

When the cards come from the file, those on which no form letter is indicated for the next follow-up should be referred to the correspond-

ent. If he considers a special letter advisable, he should have all previous correspondence attached to the card, that he may know just what has been done to land the customer.

Cross-Indexing the Chronological File. One of the disadvantages of the tickler or chronological index, described above, for a follow-up is the difficulty of locating a card, when the date under which it is filed is unknown. A letter may be written on June 10, and the card filed ahead to June 25; on June 16 a reply may be received which makes it necessary to find the follow-up card, but to do this it is necessary to look through all of the cards filed between June 16 and

Town				State					
Firm				Buyer					
Street Address				Business					

Fig. 25. Follow-up Card with Alphabetical Tab

June 25. If the card is not found, the chances are that on the 25th a regular follow-up form letter, which will make the system appear ridiculous, will be sent.

To so file the cards that any one can be found by name, without interference with the automatic features of the follow-up system, is an important consideration. This can be accomplished by the use of a card like the one shown in Fig. 25. It will be noted that this card bears a small tab or projection, on which is printed the letter *B*. These tabs are cut $\frac{1}{16}$ of the width of the card and are in twenty positions across the card. This allows for twenty subdivisions of the alphabet, the *A* tab being in the first position, *B* in the second, etc.

In filling in a card, one bearing the letter corresponding with the first letter in the name of the correspondent is selected—a *B* card for Brown, an *S* card for Smith. Now since *B* is always printed on a tab in the second position, and this tab is always the same distance from the end of the card, when the cards are filed, all *B* tabs will be in a straight line from front to back of the drawer.

No matter under what date it is filed, if Brown's card is wanted it will be found by looking through the row of *B* tabs in the second position from the left. Regardless of the number, all tabs printed

5		10		15		25		30	
Name									
Address									
Occupation					Business				
Source					Rating				
Letters					Letters				

Fig. 26. Follow-up Card with Movable Tab to Show Dates

with the same letter are found in one row, making it possible to file cards by date and cross-index by name.

Cross-Indexing the Alphabetical File. An improvement over the cross-index of the tickler, described above, is the method of cross-indexing an alphabetical file in a manner to insure a follow-up on a specified date. A card without tabs, as shown in Fig. 26, is used. Across the top of the card is printed a series of numbers representing the days of the month. This may include all of the numbers, from 1 to 31, or the month may be divided into five day periods.

In connection with this card a metal tab, which can be attached at will, is used. One of these tabs is placed over the number which represents the date on which it is to be followed up. The card is then filed, indexed by name.

This method of cross-indexing with movable tabs permits of the filing of the cards in any manner desired, with the knowledge that the follow-up date will be surely indicated. The tab method is

[illegible]

Fig. 27. Card for Combined Daily and Monthly Follow-up

Lists of Customers. Every concern whether it secures business through the mails, by means of personal salesmen, or both, should

have a list of its customers properly classified and arranged for easy reference. This should be something more than a list of names and addresses; certain essential facts about each customer—such as his business, the name of the buyer, the credit rating, and amount of purchases—should be recorded.

All of this information can be placed at the head of the ledger sheet, but it never should be necessary for another department to consult the records of the accounting department for information needed daily. The information given by the customers' list is of

<i>Purchases</i>									
	1909		1910		1911		1912		1913
<i>Jan.</i>									
<i>Feb.</i>									
<i>Mch.</i>									
<i>April</i>									
<i>May</i>									
<i>June.</i>									
<i>July.</i>									
<i>Aug.</i>									
<i>Sept.</i>									
<i>Oct.</i>									
<i>Nov.</i>									
<i>Dec.</i>									

Fig. 28. Monthly Record of Purchases of a Customer

most value to the sales department and should be kept in that department.

For customers' lists, cards are most largely used, and are most satisfactory. Cards are readily classified, new names can be added at will, and old names are removed without disturbing the balance of the list or the general arrangement of the cards.

The follow-up card can be used as a customer's card, but should be moved from the follow-up to a separate file; or a new card can be made when a prospect becomes a customer.

On the back of the customer's card a form similar to Fig. 28 should be printed. This is intended for a record of the purchases of the customer and provides for a monthly record, covering a period of five years. The amount of purchases is entered monthly from the

sold. It might be manufacturers in different lines, the different professions, retailers in several lines, or all of these combined into one list.

With a card list, any classification is easily provided. If the number of classes is small—not exceeding seven or eight—the classes can be indicated by the color of the card, a white card being used for one class, blue for another, etc.

For a more extensive classification, cards with numbered tabs, as in Fig. 29, are used. It will be noted that there are twelve of these tabs, and that they are numbered from left to right. In the follow-up systems, from which this illustration is taken, each number represents a certain line of business.

Suppose that No. 1 represents manufacturers; if all manufacturers on the list are to be circularized, only those names recorded on cards with the No. 1 tab are addressed. Now if the business is one dealing in specialties, it may be that the specialty to be sold will depend on the position held by the prospect—a sales manager will be more interested in a book on sales methods than in one on factory methods. To further classify the list, colors are used.

In the system referred to, eight colors are used. Seven of these represent occupations of prospective customers, while the eighth is used for customers. A manager or executive officer is represented by a blue card, a sales manager by a white card, etc. When a prospect becomes a customer, the card is removed from the follow-up file, the amount of the sale is entered on the back, and it is placed in another file reserved for customers. At the same time a red card is placed in the follow-up file for use in further circularizing. The tab on the customer's card shows his business, but the occupation is not so important since he is already acquainted with the house and its goods. A more familiar tone can be adopted in letters to a customer, than to a prospect.

A complete classification, such as provided in this system, is of immense value to a letter salesman. Suppose he wishes to address all executives—the blue card is used; if he wants to reach customers who are manufacturers, red cards with No. 1 tabs are the ones used. He can make his letter fit a particular class and be sure of the class.

Classification of Sales. There are certain lines of business in which a second order for the same article is seldom received from any

customer. An example is the music business. The chances of selling a customer a second piano are remote, but the fact that he has purchased a piano is a sure indication that he will be interested in certain classes of music. Book publishing is another example. A man who buys a book on advertising, or commercial law, or auditing is quite likely to be a buyer of other books on the same or kindred subjects.

In a business conducted through the mail, a classified sales list that shows at a glance what classes of goods have been sold to each

A		B		C		D	
<i>Name</i> _____							
<i>Address</i> _____							
<i>Business</i> _____							
<i>Purchases</i>							
Class A		Class B		Class C		Class D	

Fig. 30. Card for a Classified Record of Purchases

customer furnishes an excellent guide for further circularizing. On such records it is not necessary to show the amounts of purchases—the class is the important item.

Fig. 30 shows a card used for a record of this kind. The goods are divided into four classes, indicated by the letters at the head of the columns. When the first sale is made, the name and address are entered on one of these cards, and the date indicated in the proper column. A movable tab is placed on the upper edge of the card, over the letter that indicates the class, and the card is filed. As subsequent purchases are made the dates are entered, and if the purchase includes another class of goods, another tab is placed on the card. In time, one card may bear four tabs, indicating that the customer has bought goods in all four classes.

When new goods are received, they can be brought to the notice of those customers whose purchases indicate that they are most likely to be interested, without disturbing the other cards.

Indexing Customers' Cards. The best manner of indexing customers' and prospects' cards depends on the size of the list. A list of a few hundred names is best indexed alphabetically. A large list should be indexed geographically—according to location.

The geographical index consists of index cards printed with the names of the states, and sets of indexes bearing the names of the cities and towns in the different states. The state indexes are arranged in alphabetical order, and back of these the town indexes are filed alphabetically. The cards are filed back of the town indexes, these also being arranged alphabetically. When the number of names in a city is large, the cards are further subdivided by alphabetical indexes. In states where the list is small, an alphabetical index can be substituted for the town index, the letters representing towns; names of customers in Alton would be filed back of the A index, those in Springfield, back of the S index.

An advantage of the geographical index is that a definite territory can be covered by the letter salesman, or the personal salesman can go over the list and find out the condition of the trade in his own territory.

PERSONAL SALESMANSHIP DIVISION

Though the volume of business secured through the medium of the mails is increasing at a rapid rate, the bulk of the business of the country is done by personal salesmen.

Leaving out of the discussion the question of retail salesmanship, the personal salesmanship plan—the employment of traveling salesmen—is the least expensive method of selling goods at wholesale. To sell certain low-priced specialties to consumers, the mail order plan is sometimes best, for the reason that it is necessary to reach a large number of *possible* buyers to find a few *actual* buyers. This can be done at less expense by letters than by traveling salesmen.

More is being learned about how to use the mails to promote business—how to make the follow-up system an assistant to the salesmen. The manufacturer whose goods are sold to the trade, by salesmen, is learning how to build up his own business by assist-

ing the dealer to sell his goods. He advertises to interest the consumer, he follows up the consumer and the dealer, and in the end assists his own salesman to sell more goods.

Much good literature has been written on the subject of salesmanship, plenty of advice about being systematic in his work has been given the traveling man, but very little has been written on the subject of making sales records and reports of assistance to both the house and the salesman. Some suggestions on this phase of the question are made in this discussion.

Routing Salesmen. How to route his salesmen to the best advantage is one of the important problems of the sales manager. He must first decide how often the territory should be covered, then the extent of the territory he will attempt to work, and the number of men required. When this has been done, the territory of each man must be laid out, and a route which will enable him to cover the territory with the smallest mileage, must be selected. The territory should not be larger than a man can cover in a specified time, but large enough to require all of his time.

Map and Tack System. To know just where each man is at all times—to be able to locate Smith or Brown instantly, every day—is very necessary. Perhaps the best method of doing this is by the use of what is known as the *map and tack system*.

State maps, printed in colors, are fastened in the bottoms of shallow drawers, a drawer for each state. Sharp pointed tacks, with heads covered with silk in a great variety of colors, are used for various classifications, and colored silk cords are used to indicate routes and territory boundaries.

To each salesman is assigned a specific color, by which he is always known. Tacks with heads of the proper colors are placed in the map at the towns on his territory. A cord is then strung from tack to tack in the order in which he will cover the territory. When the salesman leaves a town the cord is removed from that tack, coiled up, and placed over the tack at the next town. The tack at the end of the cord always shows the present location of the salesman. Fig. 31 illustrates a map with cords—represented by the heavy lines—indicating salesmen's routes.

Other tacks, with heads of a different color or coiled wire heads for holding labels, are used to indicate special facts—as, competition

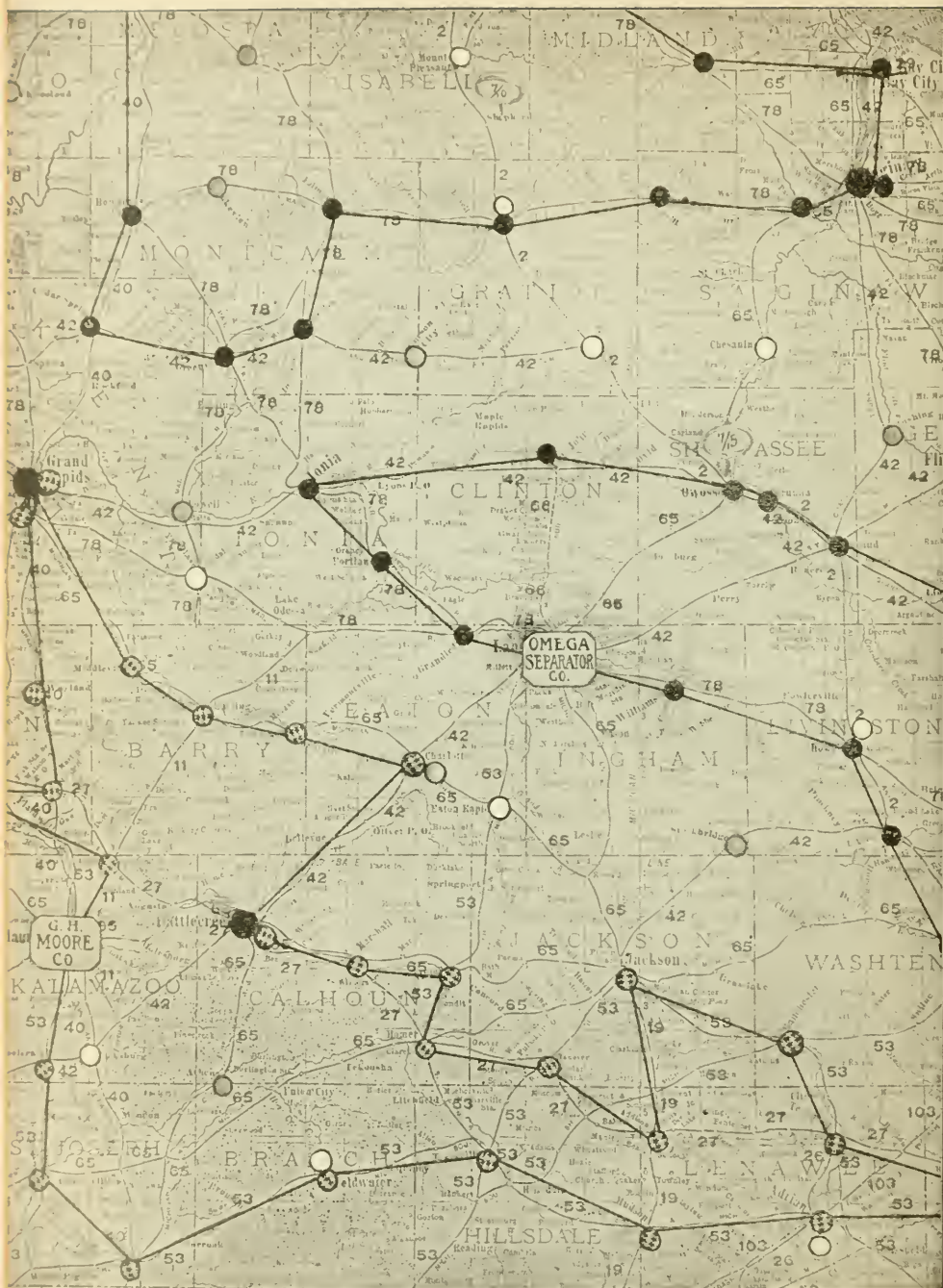


Fig. 31. Map Showing Operation of Map and Tack System
Courtesy Browne-Morse Company

strong, customer ready to buy, claim to be adjusted, or collections to be made. These are placed at the side of the salesman's tacks and are a reminder to write to him, about the special matter, at that town. If an inquiry is received or a good prospect developed, in some small town not regularly visited by any salesman, a special tack is placed in the map at that point. A cord of special color is then strung from this tack to the nearest stopping point on any salesman's route. This is a reminder to write the salesman instructing him to make a special trip to this point outside of his regular territory.

<i>Town</i> _____		<i>Date</i> _____
<i>My route for the coming week will be as follows.</i>		
	<i>Town</i>	<i>Hotel</i>
<i>Sun.</i>		
<i>Mon.</i>		
<i>Tues.</i>		
<i>Wed.</i>		
<i>Thur</i>		
<i>Fri.</i>		
<i>Sat.</i>		
		<i>Salesman</i> _____

Fig. 32. Traveler's Route Card

Route Cards. It is not always advisable to attempt to lay out the entire route of a salesman in advance, neither is it always possible for him to make the towns in the time calculated. It is wise, therefore, to require the salesman to keep the house constantly advised about his stopping places. When the route is a long one, a route card, as shown in Fig. 32, should be mailed to the house weekly. The card should be 3×5 inches in size, to fit the standard size card drawer. Route cards of all salesmen, whether there are five or fifty, can then be kept in a card tray in the manager's desk.

Reports of Calls. The successful sales manager of the modern type is learning to get more and more business from his territory; he is not satisfied to show a large volume of business in a large territory, unless he feels that he has secured all of the business possible

from every town. If Baker sells two dealers in Peoria, well and good; but why did he fail to sell the other five dealers in the same line? And it is not in a fault-finding spirit that he asks *why*; if he knew why, perhaps he and the salesman could together work out a plan that would solve the difficulty and secure from one to five new customers.

The salesman knows better than anyone else why he has failed to sell certain dealers; he is the man who becomes familiar with the actual conditions in each town—what competitors' goods are most popular, reasons for local business depression such as *crop failures*

Town			Salesman			
State			Date of Report			
	Name of Dealer	Amount of Bill	If Unable to Sell State Why	Whose Line is he Handling	What are our Prospects	
1						
2						
3						
4						
5						
6						
7						
Remarks						

Fig. 33. Salesman's Report of Calls in Each Town

or *labor disturbances*, and any causes for dissatisfaction with the goods or business methods of his own house. Possibly the sales manager is not in a position to change conditions, but certainly, he cannot solve the difficulties unless he knows what they are. The salesman should, therefore, assume that there is at least a chance that he will receive assistance by keeping the house posted on every detail that might affect his trade.

The only way in which practical results can be secured is for the salesman to make a report on every call made, in every town on

his route. A form of report card is shown in Fig. 33. This is intended for a brief report of calls in one town. Space is provided for reports of seven calls, but if there is a larger number of dealers, more than one card is used. On the back of the card, a full line is allowed to each dealer for remarks.

The salesman is instructed to mail one of these cards, in an envelope specially provided for the purpose, from each town on his route. When received, the sales manager examines them, makes his notations, and files them according to salesmen's routes. When the salesman is next in the house the sales manager goes over the cards with him, and they discuss each case individually.

Forms of report cards differ, naturally, according to the business. In some lines more specific information is needed in each case to enable the sales manager to judge intelligently the chances for future business. Fig. 34 represents a card used in one business for a specific report on each call made. The form shown in Fig. 35 provides for a brief report including suggestions regarding the date of the next call.

Follow-up of Dealers and Salesmen. In the modern advertising campaigns of manufacturers in many lines, an effort is made to secure inquiries from consumers, though the goods are sold through dealers only. The inquiry is usually secured by a promise of a free sample, a handsome catalog, or other piece of printed matter.

These inquiries should always be referred to the nearest dealer, and in answering the inquiry, the name and address of the dealer should be given. In addition to the inquiries received from advertising, manufacturers in certain lines invite dealers to send them the names of good prospects. One of the large paint manufacturers asks the dealer to send two lists—one of people who are talking of painting their buildings, one of people whose buildings need painting. The manufacturer of a widely advertised washing machine asks for the names of all possible buyers to whom the dealer has talked washing machines, without making a sale.

The object of all this is to enable the manufacturer to assist the dealer to sell more goods of his manufacture. Sometimes the margin of profit to the manufacturer is such that he can afford to maintain an extensive follow-up on the names, and even send one of his salesmen to assist the dealer to close the sale.

The manufacturers of one of the popular pianos has secured excellent results from the operation of such a system. In this system,


SALESMAN'S DAILY REPORT MUST BE MAILED DAILY	
Salesman _____	Date _____ 190__
Called on _____	
City _____	State _____
Business _____	
Usually buy in _____ Pound lots from dealer or manfr _____	
Amount handled per year _____ Good _____ Medium _____ Low _____	
Kind of metal using _____	
See my order no. _____ Enclosed _____	
Will need metal _____ Prospects _____	
Future advertising? _____ Tack adv. matter? _____	
Buyer _____	Position _____
<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="width: 45%;"> <p>Report no one unless State carefully and correctly</p> </div> <div style="width: 10%; text-align: center;">  </div> <div style="width: 45%;"> <p>chances to sell are good line of business party is in.</p> </div> </div>	

Fig. 34. Specific Report on Individual Calls

Name _____				
Address _____				
Purchaser _____		Date _____		
Remarks	Next call should be			
Salesman _____				
<p><i>NB Salesmen will please note carefully all information gained regarding our goods in use, or those of other manufacturers on back of this card. Cards should be mailed to office regularly when out-of-town calls are made. Give name of any people, no matter what position they hold, who have been of assistance or can be in the future.</i></p>				

Fig. 35. Salesman's Report of Call and Follow-up

the card shown in Fig. 36 is used to follow-up both the inquirer and the dealer. It will be noted that columns are provided for a record of the postage on every letter or piece of printed matter mailed.

The prospect receives a letter once a month, while once in two months a letter is written to the dealer asking for a report.

With the first letter to the prospect, a postal card acknowledgment form is enclosed. On the postal, space is provided for names, which the prospect is asked to fill in with names of friends who might be interested in pianos. By this simple expedient, an original inquiry is often added to with a half-dozen new names.

[illegible]

Fig. 36. Card Used for Follow-up of Dealer and Inquirer

With the first letter to the prospect, there is also enclosed a formal letter of introduction to the dealer. This letter, which is addressed to the dealer, reads as follows:

The bearer of this letter wishes to inspect our pianos. We shall esteem it a favor if you will kindly explain the merits of these instruments and give _____ an opportunity to thoroughly examine them.

Respectfully,

At the time of referring the inquiry to the dealer, the blank shown in Fig. 37 is filled in and mailed to the salesman in whose ter-

ritory the dealer is located. The lower half of the blank is for the salesman's report to the house.

Salesman's Expense Accounts. Detailed expense accounts should be mailed to the house weekly. A conveniently arranged form, with columns, for regular expense items such as *hotel, R. R. fare, livery*, etc., will greatly assist the salesman in making up his accounts. Such a form is shown in Fig. 38. This is a card 3" X 5"

<u>ADVERTISING DEPARTMENT</u>	
To _____	
<i>We have received an inquiry from _____</i>	
of _____	
<i>in regard to our pianos, and have referred it to _____</i>	
<i>When you visit this dealer please investigate what action he is taking to interest this prospect, and report to us on following:</i> <div style="text-align: right; padding-right: 50px;"><i>blank.</i></div>	
<i>THE CABLE COMPANY</i>	
<u>SALESMAN'S REPORT</u>	
On inquiry from _____	
Referred to _____	

<div style="text-align: right;">_____ Salesman</div>	

Fig. 37. Notice of Inquiry Sent to Salesman, with Blank for His Report

in size, punched to fit a small ring binder small enough to be carried in the pocket. Both sides of the card are used, providing for a record of expenses covering a period of one week.

SALES RECORDS

Regardless of the nature of the business, whether sales are made through the mail, by traveling salesmen, or resident agents, sum-

maries of sales from day to day, supply much valuable information to the sales manager. Sales summaries which show the amount of sales each day and month, are the working charts of the sales manager.

It should be remembered that these statistics are chiefly valuable for comparative purposes, but to insure comparisons of value, the statistics must be compiled in proper form. It should be possible to compare, not alone total sales, but the sales of each man in different periods, the sales of one man with those of another, the sales in different territories, the sales of different departments, the sales by mail with those of personal salesmen.

Weekly Expense Statement											
Week Beginning										190	
Name		Paid						Vo.			
Day	Mileage	Towns Visited	Hotel	R.R. Fare	Livery			Misc.	Total		
Sunday											
Monday											
Tuesday											

Fig. 38. Traveler's Weekly Statement of Expenses

Daily Sales Records. The daily record of sales should show the sales of each department, the source of the sales, and the proportion of cash and credit sales. These should also be divided as to wholesale and retail.

A convenient form is shown in Fig. 39. This is a sheet punched for a loose-leaf book, and there should be as many copies as there are men in the organization who are directly interested. Besides the sales manager, the general manager, the advertising manager, and the comptroller are all directly interested. By using carbon paper as many copies as needed can be made at one writing.

[illegible]

MONTHLY SALES RECORD _____ 19 _____												
Day	Wholesale					Retail			Grand Total			
	Mail Order		Salesman		Total Wholesale			Total Retail				
	New Customers	Old Customers	New Customers	Old Customers		City	Mail Order					
1												
2												
3												
4												
5												
6												
26												
27												
28												
29												
30												
31												
Totals												

Monthly Sales Records. Fig. 40 represents a sales sheet arranged for a monthly summary, the statistics being obtained from the daily records. The monthly summary follows the same lines as the daily record, except that sales are not divided by departments.

Where the business is divided into several departments one of these monthly summary sheets can be used for each department.

DAILY RECORD					
Month _____			Salesman _____		
Day	Amount		Day	Amount	
1			16		
2			17		
3			18		
4			19		
5			20		
6			21		
7			22		
8			23		
9			24		
10			25		
11			26		
12			27		
13			28		
14			29		
15			30		
			31		

Fig. 41. Daily and Monthly Record of a Salesman

be a record showing the volume of business of each man. The form shown in Fig. 41 shows a card used for a daily and monthly record of one salesman. The form might be elaborated to show cost of goods, salary, expenses, gross and net profits; but the tabulating of this information is more properly the work of the statistical department.

These cards should be filed alphabetically by name of the salesman, and divided according to states. They will then show the sales of each man and in each territory.

These daily and monthly summaries provide for a comparison of wholesale with retail, mail order with personal salesmen, and departments. If there is a gain in one department and a loss in another, or a fluctuation in total sales, these summaries point out the source, showing where greater efforts are needed and where praise is deserved.

Salesmen's Records.

While the sale summaries described afford many valuable comparisons, they do not provide a classification that will indicate the value of each salesman. There should

For a business in which goods are sold by resident agents, a card similar to the one shown in Fig. 42 should be used. The upper half of the card provides for the recording of certain essential information, while the lower half is used to record sales.

Town			County			State		
Population								
Name					Business			
Territory								
Agent for								
Rating								
Disc.								
RECORD OF SALES								
Date	Style	Price	Date	Style	Price	Date	Style	Price

Fig. 42. Record of Sales by an Agent or Dealer

CREDITS AND COLLECTIONS

THE CREDIT MAN

Acknowledged specialists may be employed in every branch of an enterprise, the shrewdest brains may be engaged in buying, producing, and selling, but the final conservator of the business is the credit man; others may be profit makers, but he is the *profit saver* in every commercial organization.

He is on guard constantly—always on the lookout for the slightest sign of danger, ever ready to take prompt and vigorous action to avert disaster to his house or to lend a helping hand to a customer. His duties make him the most misunderstood man in the entire organization.

He is thorough, methodical, painstaking, a keen student of human nature, possessing faith in the inherent honesty of his fellow men. The insistent search for facts that he demands, may cause him to be regarded as an inquisitive busybody by the very customer whom he desires most to help; as a carping critic, by the salesman of his own house.

Through it all he remains faithful to his trust, watchful of the interests of his house, and has the satisfaction of knowing that in spite of his mistakes but a remarkably small part of his credits prove bad—that where his conservatism has lost hundreds in trade it has prevented the loss of thousands.

On no man in the organization is there such tremendous pressure brought to bear to secure favors; on no man do the consequences of his own mistakes come back so surely. The credit man must be firm, and, while availing himself of every reliable source of information, he must stick to his decisions, for he is expected to collect from those to whom he has extended credit. Every other man has a loophole through which he may escape criticism; if a customer is lost because goods are unsatisfactory, it may be “up to” the salesman, the shipping clerk, the superintendent, a foreman, or even an ob-

scure mechanic. The credit man has no one on whom he can place the blame; if a customer fails to pay, no reason short of an earthquake will relieve the credit man of the responsibility.

So much for the credit man. Now for a discussion of the work he is expected to do, the machinery of his office, and his methods of operation—for the writer disclaims any intention of attempting to teach the student how to become a credit man.

INFORMATION REQUIRED

The most important function of the credit man is the determining of the credit risk—the amount of credit that can safely be extended to each individual. When he consents to the delivery of goods to be paid for at a future date, he is loaning his firm's money.

Before credit is granted extreme care must be exercised in determining the ability of the purchaser to pay, or that he will be able to pay when the bill is due. After necessary precautions against assuming too great a risk have been taken, a further insurance against loss is included in the amount added to cost—a certain per cent of the profit is expected to offset the risk.

In determining the credit risk, different classes of information are necessary in different lines of business. While certain specific information about individual applicants for credit is necessary, the subject may be divided into two general classes—wholesale and retail. Under the head of *wholesale*, is included information about all business concerns, whether a single proprietor, a partnership, or a corporation. In a general way also, the same information is required in respect to these concerns by the banker, the manufacturer, the jobber, and the wholesaler. Under the head of *retail*, is included the transactions of a retailer with his customers, who may be regarded as individuals.

Leading authorities on the subject of credit place the factors which determine the credit risk in two classes—the *man* and the *business*. Under the first heading is considered the business morals of the debtor and his ability in, and familiarity with the business in which he is engaged. The second heading—the business—is considered from the financial standpoint, divided as to its assets and liabilities, and the profits or losses made in its operation.

But as to the relative importance of the two principal factors—the man and the business—authorities differ. In his valuable con-

tribution to the literature of credits, Mr. E. St. Elmo Lewis takes the stand that the man—his character—should be considered secondary. To quote from Mr. Lewis' book:

If goods are the basis of all credit, character of the owner is and should be an after consideration. The very first question any credit man should ask, is, *can he pay?*

The question of a man's ability to pay is becoming of greater ease of solution.

The question of the intention or inclination to pay must always be shrouded in the nebulae of psychological theory.

What is the applicant worth? is the crucial test. Then we shall test him by another. What sort of a man is he?

Do we buy a law suit when we sell him goods?

How much must we add for moral insurance against loss?

Character is of vital importance in small concerns; of vital importance in concerns doing a large business on small capital, and it becomes of less importance as we progress into the field of corporations.

In direct contrast to this contention are the views of Mr. Ernest Reckitt, as expressed in an address delivered before an organization of bank clerks. After naming the factors to be considered by the banker before extending credit, he said:

You will note that in enumerating these factors I place first, and purposely so, "The Man Himself," and I believe I am correct in stating that bankers are now placing more stress upon this point than ever before. The man of good character and intelligence, who is full of energy and perseverance, will not find it difficult to obtain a reasonable line of credit with his bankers, while the man who is deficient in those qualities, whatever his reputed wealth may be, will be looked upon with suspicion. It therefore behooves you to become students of human character as well as students of banking, if you are to fill the highest positions within your reach.

These comments may be out of the range proposed by this paper, but I feel I cannot leave this topic without giving you an illustration of the point I wish to emphasize, namely: That it is the character of the man, or men, in a business, which must be first considered before the banker makes a loan. Some time ago, in a certain city, there was a large corporation reputed to be very wealthy, whose balance-sheets were beautiful to behold. Their business being large, they were borrowers of some of the largest banking institutions of their city. Apparently without any warning the corporation was declared bankrupt and went into the hands of a receiver. Later, investigation showed that the balance-sheet was misleading; some people might have called it a worse name, for the assets had been overstated and the liabilities understated. I happened to be in that city at the time of this failure, and, meeting a director of one of the banks with whom I was well acquainted, I inquired if his bank had been caught. "No," said he, "they did try and open an account with us some time ago with the object of becoming borrowers, but we turned them down." I asked him what reasons he and his colleagues on the directorate

had for such action at a time when this corporation was supposed to be so prosperous. "Well," said my friend, "some time ago it came to my knowledge that this corporation paid no water tax and that its personal property tax was a mere bagatelle to what it should have been, and I figured out that the officers of a corporation that would be guilty of petty bribery would not be good customers for our bank."

So it will be seen that a knowledge of the business morals of the men in your community and a high ideal, on your part, of what constitutes good business morals is a most essential quality in the make-up of a banker, and that it was these factors that enabled the bank of which my friend was a director to escape what otherwise would have been a bad debt.

Financial Statements. Without attempting to decide the relative importance of the two principal factors, it can safely be stated that one of the first steps to be taken by the credit man is to secure a financial statement from the applicant. And the character of the statement may serve as a guide in determining the character of the man with whom he has to deal.

Most business men are willing to comply with any reasonable request relative to their financial standing, when applying for credit. Until recently, the average man had objected to giving out such statements, except to his bankers, but with the more universal demands for such statements has come a change, and now a statement of some sort is almost always obtainable.

The form of statements used by banks differ somewhat from that used by manufacturers and jobbers, and, while it differs slightly as between banks, and also as to whether the borrower is an individual, a partnership, or a corporation, in general the statement required follows the lines of the form shown in Fig. 1. This statement is signed, in the name of the firm by a member, in the case of a partnership; and in the name of the company by one of its officers, in the case of a corporation. A statement in the same form gives all of the information of a financial nature required by the manufacturer or merchant.

Analysis of the Statement. Of equal importance with the statement is the ability to read it—to correctly interpret its real meaning. This calls for a careful analysis of the several items of which it is composed. To make a correct analysis means that the credit man must have a general knowledge of the business in which the one asking for credit is engaged. The banker must know, for example, whether the season is one in which more capital is likely

to be needed in the trade of the borrower, or one in which he should be liquidating his indebtedness.

So important is this phase of the question that some of the larger banks have adopted the plan of assigning requests for loans in dif-

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For the purpose of obtaining Credit with you for money which.....may now or hereafter borrow of you

_____of _____in the State of _____do hereby
make the following as a FULL, COMPLETE and true statement of _____present resources and liabilities.

RESOURCES		Dollars	Cents	LIABILITIES		Dollars	Cents
Cash on hand or in Bank				For Merchandise—give name—not due			
Stock of Merchandise on hand at value							
Notes not due, secured				For Merchandise past due			
Notes past due, secured				To			
Notes unsecured not due							
Notes unsecured past due							
Accounts not due							
Accounts due and not 60 days past due							
Accounts over 60 days past due				For Borrowed Money—Rate of Int. paid			
Store Building at value				\$ Due			
Due from partners or stockholders				\$ Due			
Other personal property—describe it				Amount secured \$			
				Chattel Mortgages \$			
				Upon what property given			
Real Estate, market value, give name of person holding title				When due			
				Mortgages on Real Estate—state incumbrance on each piece—when due			
Rent of Store per year \$							
Annual Sales \$				Amount of past due notes			
Homestead, at value—state to whose name				Amount owing on judgement notes			
				Are you surety on notes or bonds?			
				Confidential, and other debts not included above References			
Insurance—state on what property placed and names of companies							
TOTAL ASSETS				TOTAL LIABILITIES OF EVERY KIND			
NET ASSETS							
Business				Names of }			
Located at				Partners in full }			

The above Statement, both printed and written, has been carefully read by _____and _____affirm it to be a full and correct statement of _____financial condition at this date, and any change that is against _____will notify you at once.

Signature _____

Fig. 1. Customer's Financial Statement

ferent businesses to different officers. One man will investigate real estate securities, one, applications from board of trade houses, another handles applications from packing houses, others look after

the steel, building, jobbing, and manufacturing enterprises. Each man is a specialist, making a special study of conditions in the business to which he is assigned.

In making an analysis of a statement, each item must be taken up separately and considered with respect to its relationship to other items, and its bearing on the statement as a whole.

Cash on Hand. The cash on hand should be consistent with the needs of the business, and, if listed separately, the cash in office should never be a large sum. There is seldom any good reason why cash should not be deposited daily. The banker will find it necessary to carefully scrutinize the amount in bank, particularly if the borrower claims to deposit in no other bank.

Merchandise. This item is always a somewhat uncertain quantity; often an estimate pure and simple, and the debtor is unlikely to make his estimate too low. In the absence of provable figures, it is necessary for the credit man to apply his knowledge of the business. Is the stock larger than should be required? Is it too low to enable the debtor to keep pace with his competitors? Or, if a manufacturing business, how much is raw material and how much finished goods?

One of the important factors in making an analysis of this item is a knowledge of the accounting methods of the debtor. Does he keep stock records, or if not, is his stock well cared for and stored in a manner to permit of a reasonably accurate estimate? On the latter point, reports of the observation of salesmen, referred to later on, have an important bearing.

Bills Receivable. On the statement form shown, this item is divided as to notes, secured and unsecured, not due and past due. To state that the amount of bills receivable is so much is one thing, to state the amount not due, is quite another. Any considerable amount of unsecured and past due paper indicates lax methods in the debtor's own credit department.

Accounts Receivable. This item is divided as to accounts less than 60 days past due and accounts more than 60 days past due. These items require the same close scrutiny as bills receivable.

The two items—bills and accounts receivable—should bear a reasonably constant ratio to the amount of sales. Any unusual increase in the percentage of book debts to sales calls for careful

scrutiny, and leads to one of three conclusions: that trade conditions are bad, that the credit department has been lax, or that the amount is overstated.

The first of these conclusions is supported or rejected by the credit man's knowledge of financial conditions in general, and of conditions in the particular trade of the debtor. During a financial panic, or in a season following crop failures, it is to be expected that book debts will be greater in amount than in ordinary times. In the event of the third conclusion, it is time for a careful investigation. As a rule, the investigation will be productive of best results if an examination of the books by a public accountant is included.

Due from Stockholders. This is an item which must be carefully studied. Who are the stockholders or partners who own the firm, and for what? What is their financial responsibility?

Sometimes, stockholders whose entire fortunes are invested in a corporation are found to be debtors to the same corporation for borrowed money.

Due for Merchandise. This item is divided as to accounts not due and past due. It should be carefully compared with the same item in statements furnished in the past. An increase may or may not be due to natural causes such as the requirements of the trade during a particular season.

Due for Borrowed Money. Any increase in this item should be offset by an increase in assets, or a decrease in other liabilities.

Liability as Surety. This is an item of more importance than is generally accorded to it. True, the liability is a contingent one, but many a man has been forced into bankruptcy by the failure of another, for whom he had become endorser.

Another item which should in the opinion of the writer appear among the liabilities, is discounted paper. When a man discounts the paper of a customer, received in the course of business, he assumes a liability for the amount, if not paid at maturity. True, the liability is contingent, but a liability nevertheless. The extent of the liability depends on the prosperity of his own customers and the care which he has exercised in accepting their paper.

Information for Retailers. The information available for the retailer is of a very different class. Here, the factor, the man himself, plays a more important part. The retailer is obliged to depend more

largely on his personal knowledge and the general reputation of his customer.

The city retailer, for instance, needs to know where the man works, his salary, his reputation for paying others—his landlord, grocer, and butcher—and something about his personal habits and general reputation.

How long has he been in his present position?

Does he make frequent changes?

Does he own a home?

What rent does he pay?

Any other wage earner in the family?

These are some of the questions, the answers to which will assist in determining the credit risk.

The country retailer needs other information about his customers. As a rule, he can answer all of the questions asked by the city retailer in respect to his own customers. He is more intimately acquainted with his customers; he has a better opportunity to learn their characteristics and habits, than the city retailer. The country retailer has another advantage, in that a closer bond of friendship exists between him and his neighbor merchants. The interests of city merchants are no less common, but distances separating them make an interchange of views more difficult.

About his country customers—the farmers—the retailer requires still different information. Besides full information about the real estate owned, and mortgages given, he needs to know something about the man himself.

Does he market his crops early, or is he a speculator—always holding for possible higher prices?

Is the farm well kept up?

Are the implements properly housed, or left outside at the mercy of the elements?

Does he keep his live stock in good condition, and how much does he feed for market?

Is he thrifty or shiftless?

Only by personal contact can these things be learned. The country merchant who keeps in closest touch with his farmer customers—sympathizing with them in their misfortunes and rejoicing in their prosperity—is usually the most successful. As one country

merchant puts it, he must act as a general advisor, and help them bear their very aches and pains.

SOURCES OF INFORMATION

The usual sources of credit information are the mercantile agencies, reports from local correspondents, reports from traveling salesmen, and merchants' associations or credit reporting agencies.

Mercantile Agencies. Of these sources, perhaps the best known and most widely used by manufacturers and jobbers, is the mercantile agency. The mercantile agency is the outgrowth of a necessity. About the year 1840, a few New York merchants formed an association for the interchange of credit information. Later, this became a business conducted by individuals who charged a small fee for written reports.

The business has grown to such proportions that a single agency requires about 200 offices, located in the principal cities throughout the world. In the territory of each office, which is presided over by a manager, correspondents are employed, and at certain seasons country reporters traverse every district, gathering data to be forwarded to the branch offices. Every court house in the United States has its paid correspondent, who promptly reports any action—as the filing of suits, recording of mortgages, or entering of judgments—that might affect the credit risk of any business man in the country.

Some idea of the magnitude of the business, and the task of gathering statistics, can be gained when it is considered that the books of a single agency contain the names and ratings of about 1,500,000 persons. About each of these individuals, the latest data collected by the reporters is on file in the various branch offices.

Delays in securing information is one of the most common complaints against the agency service, but the service is probably as prompt as can be expected. Suppose a request for a special report is received this morning. First, the information on file is copied, and proofread to guard against errors. This is sent to the subscriber, but if it is not of a recent date he is advised that further information will be forwarded. Or, there may be no data on file, in which event a reporter is assigned to the case. He may be obliged to make several calls before finding his man, and when found, the man may be reluc-

tant about giving information. If real estate is listed, the real estate man must look up the title and mortgage records. Thus, two or three days may elapse before it is possible to furnish the report.

Some complaint is heard that reports furnished by the agencies are not sufficiently specific—which is probably true in many cases—but it is often quite difficult to obtain information on which positive statements can be based. On the whole, the service of the agencies is of very great value to the subscriber. As to its defects, the best way to overcome them is for the wholesaler to establish a credit organization of his own, to supplement the service of the agency.

Local Correspondents. If the matter is properly handled, much valuable information can be secured from local correspondents. The banker, or a local attorney, is in a position to make confidential reports on local merchants. In fact, the agencies secure much of their information from this very source.

But, in establishing local correspondents, the exercise of good judgment is necessary. The local attorney should not be expected to furnish information without pay, or to go into details that would not be asked of an agency charging \$100.00 a year for the service.

An attorney has favored us with a blank sent out by one wholesale house, on which he is asked to make a complete report. Among other information requested, the blank calls for the value of merchandise, realty, cash, total worth, liabilities, and numerous references to his character, habits, etc. Following this statement is the question, "if not paid, can you collect?"

Here is a very complete statement, to compile which would require several hours' research, but without a single suggestion that the attorney will receive pay. And then he is asked if he can collect, after the house has exhausted all usual methods.

A certain other concern, when opening new territory, writes to a local attorney telling him they are entering the field; that they will require information from time to time, for which they expect to pay a reasonable fee; and ask if he is in a position to represent them in this capacity. At the same time the attorney is told that he will receive for collection any accounts on which such action may be necessary.

When a special report is desired, the blank shown in Fig. 2 is sent. The local correspondent is expected to give as full information as possible, for which he is paid promptly.

In this way, excellent results are secured. There is some question about the advisability of leaving the amount of the fee to the correspondent. A better plan is to have the fee to be paid for all ordinary reports decided in advance, extra compensation to be allowed in special cases. The average country attorney will furnish an intelligent report for two dollars—a low price for reliable information.

_____ / 9 _____
<p><i>Dear Sir:</i></p> <p style="text-align: center;"><i>Please make the following report promptly, and send us bill for your services</i></p> <p style="text-align: right;"><i>Yours truly,</i> <i>WILSON COMPANY.</i></p>
<p>____ <i>Firm Names</i> _____</p> <p>____ <i>Partners</i> _____</p> <p>____ <i>Est. value of Mdse.</i> _____ <i>Realty</i> _____</p> <p>____ <i>Encumbrance on Realty</i> _____</p> <p>____ <i>Character</i> _____ <i>Habits</i> _____</p> <p>____ <i>Is he good for</i> _____ <i>On</i> _____ <i>Time?</i></p> <p>____ <i>Remarks</i> _____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p style="text-align: right; padding-right: 50px;">____ <i>Sign</i> _____</p>

Fig. 2. Local Correspondents' Report Blank

Traveling Salesmen. Certain information about the business and general reputation of a customer can best be obtained through the salesmen of the house. They are the men who come in direct contact with the customers, acquiring an intimate knowledge of each.

The average salesman objects to making out lengthy reports, but if approached in the right spirit, will give the credit man the benefit of his observations. The salesman's judgment is scarcely to be relied upon in the matter of the financial standing of a customer—his anxiety to sell goods makes him too optimistic—but he is probably the best judge of the character and business ability of a man on whom he is calling regularly.

Out of the merchants' association has grown the retail credit reporting agency—the exchange of information being conducted as a private enterprise. The expression, *exchange of information*, is used advisedly, for the service of these agencies consists mostly of reports giving the experiences of other merchants. To quote from the prospectus of one of these concerns:

Our company does for the retailer what Bradstreet and Dun do for the wholesale dealer. We arrive at the result, however, in a different way. We give accurate information as to how people pay their bills, regardless of their financial standing.

This information we get from merchants and professional men by means of a thorough canvass of our entire territory. We visit all people doing business, whether our subscribers or not, and in this way secure the names of all consumers in business or private life.

We are thus able to tell the grocer how Mr. *B.* pays his butcher, his tailor, his hatter, his doctor, and every other trade or profession he deals with, and each of these in turn is furnished with the same kind of information from the grocer; thus we establish the exact credit standing of Mr. *B.* with the entire trade of the city.

Acting upon information thus furnished, every merchant or professional man in the city knows from the most reliable and trustworthy source to whom he can safely give credit and whom he should refuse.

For example, we here give a specimen rating with an explanation of the same.

"John Doe, carpenter, 187 Broad St., 5G 2F."

This rating indicates that five different merchants have found by experience that John Doe is a prompt paying credit customer, and two other merchants have found him somewhat slow, but regard him reliable and trustworthy.

Next example:

"John A. Doe, lawyer, 210 North Second St., 4D 3B."

This rating indicates that four different merchants have found him too slow in paying to be a desirable credit customer, and three other merchants have found him bad pay and unworthy of credit confidence.

Other sources of information, which come under the head of exchanges of ledger experiences, are the credit men's associations. These associations, through clearing houses, exchange information about their customers, thus supplying the wholesaler with the same class of information as described above for retailers.

One credit man relates the following incident, illustrating the value of the association clearing house. On one of the reports furnished by the clearing house, he noticed that another merchant had refused credit to one of his own customers. Investigation developed the fact that this particular customer's locality had suffered severely

from the destruction of crops by a cyclone. Now it happened that this credit man's house was about to fill a large order from this very customer. The shipment was held up, and the credit man promptly wrote to the merchant expressing regret that his community had suffered so severely, and asking if his house could be of any assistance to him. In closing the letter, the suggestion was made that since collections were likely to be slow with the merchant, they would allow him to cut down his order.

The letter had the desired effect. Instead of turning him down the merchant was made to feel that he had friends in that house, and it is probable that he continued to be one of their valued customers.

RECORDING CREDIT INFORMATION

Scattered information is of little value. A credit man may avail himself of all sources of credit information, but unless he has it filed and recorded where he can put his hand on it, he will find it of little assistance in determining credit risks. He cannot "keep it in his head" and get the best results.

There are credit men who profess to rely largely on intuition, but the hard-headed man—the one who makes the fewest mistakes—relies on his facts and figures. He uses judgment, but first wants the facts marshaled in logical order.

Filing. The method of filing best adapted to the needs of a given concern depends on the size of the business, number of customers, method of collecting information, and the quantity of data kept on file. In a small business, depending almost entirely on the ratings of the mercantile agencies, with an occasional special report, no special filing system is necessary. The few reports received can be filed with the regular correspondence. But in a well-organized credit department, handling credit information about a large number of customers, the question of filing is of importance.

In the first place, all reports should be kept in one place; special agency reports, reports of traveling salesmen, local correspondents, and the credit clearing house, with financial statements furnished by the customer, should be filed together. This means that they should be separated from the general correspondence; if filed with the correspondence, they are sure to become scattered when the files are transferred.

the essential facts which naturally influence the credit risk, and should be in such form that it can be referred to very readily.

As explained above, this transcript can be made on the credit information folder, but the more usual plan is to use a card. For each customer a card such as shown in Fig 6 is used. The special feature of this card is that both the capital and credit ratings are listed. Such a card saves the time that would be required to refer to

Year	1909	1910	1911	1912	1913	1914	1915
Jan.							
Feb.							
Mar.							
Apr.							
May.							
June.							
July.							
Aug.							
Sept.							
Oct.							
Nov.							
Dec.							
Remarks							

Fig. 5. Back of Credit Information Folder

the agency books, and affords a comparison of the ratings given by the agencies on different dates. Both the book ratings and special reports are entered on this card.

A card which provides for reports, other than those furnished by the agencies, is shown in Fig. 7. A line for the folder number will be noted at the top, a numerical system of filing the folders being used. Although the numerical system is frequently found, it has no practical advantages, and the alphabetical system is to be preferred.

The form shown in Fig. 8 provides for more general information about the business—such information as would be gathered from the reports of salesmen and local correspondents. It will be noted, also,

[illegible]

Fig. 6. Credit Agency Report Card

that the financial information refers more especially to the firm members. This card is used to supplement the books of the agencies.

[illegible]

Fig. 7. General Credit Report Card

The card shown in Fig. 9 gives a complete history of reports asked and received, and of credits granted. This form is used in a

business in which the purchases of a customer are infrequent, and involve considerable sums. The credit risk is considered each time an order is received.

The card shown in Fig. 10 is used by a retailer. As is usual in retail credits, the information provided for in this form refers to past experiences and the general reputation of the customer.

<i>Name</i>							
<i>Full name of owners</i>	<i>Age</i>	<i>Mar.S.</i>	<i>Real Est.</i>	<i>Encumbered</i>	<i>Worth</i>	<i>Standing</i>	<i>Habits</i>
<i>Commenced</i>				<i>Succeed</i>			
<i>Former business and where</i>							
<i>Present stock</i>				<i>Resources outside business</i>			
<i>Total worth</i>							
<i>Habits of payment</i>				<i>Cash or credit business</i>			
<i>Ever fail</i>				<i>Standing of firm</i>			
<i>Bank</i>				<i>Ever burn</i>			
<i>Progress in business</i>				<i>Branches</i>			
<i>From whom do they buy</i>				<i>How much credit</i>			
<i>Remarks</i>							

Fig. 5. General Credit Information Card

Like the folders used for filing credit statements and reports, credit cards should be indexed alphabetically, subdivided by states and towns when necessary. Filed in this manner, each card is accessible, and can be referred to quickly. An advantage of cards for this and many other purposes is that obsolete matter is quickly eliminated, and new names are added at will without disturbing the general arrangement of the records.

BRANCH HOUSE CREDITS

Many businesses are conducted through branch houses, each in charge of a local manager. Customers are supplied by the branches,

[illegible]

Duplicate accounts, made up from these reports, enable the home office to keep in as close touch with each account as though collections were made direct.

Name		Ledger Page	
Address			
Employed at	Date	Estimated Income	
Reputation for Paying			
Pay us in the Past		Limit of Credit Allowed	

Large concerns, operating many branches, have found by experience that it is best to pass on all local applications for credit at

This form is made in duplicate, both the original and copy being forwarded to the branch. The original is placed in the branch house files, together with the application for credit. Both the cashier and the manager of the branch sign the duplicate, as an acknowledgment that they understand the terms, and it is then forwarded to the home office.

GREAT WESTERN OIL CO. BRANCH HOUSE CREDIT DEPARTMENT LITTLE ROCK ARK. _____ 19____ RE. _____ _____ BRANCH	
Referring to application for credit by above: _____ Credit limit \$ _____ Terms _____ Refined Oil _____ Gasoline _____ Lub'g. Oil _____ P. Mdse. _____ Misc. Mdse. _____ _____ _____ _____ _____ _____	
GREAT WESTERN Oil Co. Per. _____ B.H. Credit Manager	
Noted and recorded _____	Cashier
Noted _____	Manager

Fig. 12. Branch Office Credit Notice

In the home office, the original application and the statement of terms granted, signed by the branch manager, are filed together. A folder is used for each customer, filed alphabetically with subdivisions for states and towns. Every subsequent report and memorandum of credit information is filed in this folder.

When the report from a branch house shows an account to be past due, an inquiry blank, as shown in Fig. 13, is sent to the branch. This is in duplicate, the copy being retained at the branch house, and the original forwarded to the home office. In both offices, this report is eventually filed in the folder with other credit information.

A noticeable feature of this system is that all blanks are made in duplicate. This insures duplicate credit files in the home office and branches. It is, of course, necessary for each office to forward to the other any special data that may be received, from whatever source.

COLLECTIONS

The duties of the credit man are not ended when he has passed on the credit of a prospective customer; a very important duty follows, and that is to collect the accounts that he has placed on the

GREAT WESTERN OIL CO.	
<i>Please answer all questions after full investigation, and return in first mail.</i>	
<i>LITTLE ROCK ARK. _____ 19__</i>	
<i>_____ Branch</i>	
<i>Your monthly report shows the account of _____</i>	
<i>is _____ past due and if same is not already paid we ask you</i>	
<i>to investigate at once, and fill out the following report. _____</i>	
<i>Have you made a special effort to collect this account? _____</i>	
<i>What reason does the debtor give for not paying? _____</i>	
<i>Have you heard any complaint regarding manner of paying? _____</i>	
<i>Has any firm brought suit to collect on account? _____</i>	
<i>Is his business good? _____</i>	
<i>Is his stock kept up? _____</i>	
<i>Does he give business proper attention? _____</i>	
<i>Incase the debtor is solvent, but can not pay now, can you get a note,</i>	
<i>with good security or endorses, not to run more than six months? _____</i>	
<i>_____ Manager</i>	
<i>Incase you can not complete this report intime for next mail,</i>	
<i>please inform the head office of this fact, and send report as soon</i>	
<i>as possible.</i>	

Fig. 13. Branch Office Credit Inquiry Blank

books. He may assign the handling of collections to another, but the collection desk should be under the supervision of the credit man.

The handling of collections furnishes one of the most severe tests of the ability of the credit man; it calls for the exercise of a certain tact, not absolutely essential in any other work in business life. The successful collector must, first of all, be a good judge of character;

he must be able to read character, and govern himself by what he learns of his customer's peculiarities. He must be a diplomat, with the happy faculty of smoothing out the rough spots, and satisfying the chronic kicker. While using judgment in granting special favors to the slow-pay customer, he must be able to differentiate between the temporarily embarrassed but able and honest debtor, and him who continually makes use of a hard-luck story to arouse sympathy and gain time; he must know when to be gently firm, and when to take vigorous action to save his house from loss.

One of the essential accomplishments of a good collector is the ability to write diplomatic letters. Collection correspondence is in a class by itself. The most valuable correspondent is said to be he who can write letters that sell goods. We have no fault to find with this statement, but prefer the way Mr. Cody puts it—"the ability to write letters that make people do things." The collection correspondent must be able to write letters that make people do things.

In a wholesale or manufacturing business, or any business that is not strictly local, practically all of the collections are made by mail, hence the subject of collection correspondence becomes of extreme importance. The extent to which letters are used is naturally governed by the ideas of the collector; by some they are used freely, by others as special appeals or duns only. One very successful credit man, who has handled the collections in one of the largest mercantile establishments in the country, gives it as his opinion that a letter should be sent with every request for payment—even with the monthly statement.

Except in unusual cases, specially dictated letters are not necessary; filled-in form letters answer every purpose—indeed it is claimed by many that carefully prepared form letters, designed to meet certain definite conditions, are superior to letters dictated in the ordinary rush of business. Forms can be prepared for different classes of customers, and to meet any of the contingencies likely to arise in the ordinary business. Form letters used for collection purposes should be exceptionally well printed, and great care must be used to secure ribbons that are an exact match for the body of the letter. There is nothing more calculated to make an unfavorable impression than a letter in which the date, name, and address fail by several shades to match the body.

The exact form of the letters must be varied to suit the particular business in which they are to be used; they will differ in manufacturing, wholesale, and retail lines, in a mail-order business, or for installment accounts. In a manufacturing business, for instance, a letter something like the following might be sent with the monthly statement.

DEAR SIR:

In accordance with our usual custom, we enclose a statement of your account as it appears on our books at this date. Will you kindly compare this with your records, and advise us of any discrepancies.

That we might be in a position to fill your orders promptly, we have kept our factory running on full time during the past few months, which has involved quite a heavy investment in material. We will, therefore, appreciate a check from you covering the amount shown to be due.

We will also appreciate a liberal order, which we can fill at once, as our stocks are unusually complete just now.

Very truly yours,

Such a letter leaves a very much better taste than *please remit* stamped on the statement, and yet it plainly asks for a remittance. There is something about the letter that savors of the personal appeal, and gives the debtor the feeling that a special accommodation is being asked, which he should make an effort to grant.

If the first letter fails to bring a response, it should be followed up. The second letter, following the first in about 10 days, might be as follows:

DEAR SIR:

A few days ago we sent you a statement of your account, showing a balance of \$, of which \$ is past due.

Not having heard from you, we assume that the account is correct, and that it will be satisfactory to you to have us draw on you on the 15th.

In the meantime we will be very pleased to fill your order for any of our goods that you may need.

Very truly yours,

A letter of this kind rarely fails to bring a goodly percentage of remittances. The mere suggestion of a draft often has the desired effect. The average merchant dislikes to have a draft presented; he feels that it has a tendency to injure his credit with the very man whom he may be obliged to ask for an accommodation—his banker.

The polite request for an order acts as a sugar coating which covers the suggestion of a dun, and leaves the recipient in a pleasant frame of mind.

The second paragraph of the above letter does not contain a positive statement that a draft will be made, nevertheless, such a course is hinted at, and, unless a communication of some kind is received, the draft should invariably be made on the date specified. The customer should be taught that the collector means just what he says; any other course indicates a lack of sincerity, and gives the customer the feeling that these notices are not to be regarded seriously.

On the other hand, it is possible to go to the opposite extreme in the use of drafts. The writer has in mind a business man who had a habit of sending statements of all accounts the first of the month, without a letter, and following these with drafts about a week later. Many times these drafts were made before it was possible for a remittance in response to the statement to reach him, which caused hard feelings, and the loss of many customers. It is the custom of many firms to pay all bills on a certain day of the month—a fact which the observant collector quickly notes, and governs himself accordingly in the matter of sending drafts.

When a draft is returned, a letter should be written immediately; and in this letter a little sharper tone is justifiable. The following is a good sample of a letter to be used at this point:

DEAR SIR:

We are disappointed to find that you have allowed our draft to be returned unpaid, as we had counted on this amount to help in meeting our current obligations. While the amount of your indebtedness is not large, the aggregate of the many small accounts makes up the large amount outstanding on our books, and to not receive the amount when due, causes us considerable embarrassment.

As you know, our terms are strictly 30 days net. We must insist on receiving prompt payment when bills are due; our prices are figured on this basis, and our arrangements for meeting supply bills and pay-rolls are dependent on the prompt payment of bills by our customers.

Your total indebtedness to us is \$, of which \$ is several days past due. We would appreciate a remittance of the entire amount, but must insist on the immediate payment of the amount past due. Failing to receive either a remittance or your note, by the 23rd, we will again draw on you, and shall expect you to pay the draft when presented.

By the way, our Mr. Jackson reports that he has failed to secure an order from you on his last two trips. Now if you have any cause for dissatisfaction, we would like to have you tell us, as we are more than anxious to please you, and would certainly appreciate your future orders.

Very truly yours,

One point in this letter, to which special attention is called, is the absence of the word *dishonor*. Technically, when a draft is not paid it is dishonored, but the word has an ugly sound; the word *unpaid* is less harsh, yet conveys the desired meaning. While it is sometimes necessary to be quite emphatic, nothing is gained by adopting a tone calculated to arouse the antagonism of the debtor. The time-honored axiom that "More flies can be caught with sugar than with vinegar," is given a special force when considered in connection with collection letters.

Naturally, these letters must be varied to suit the business, the season, and general trade conditions. They are not submitted as models, to be used under all circumstances, but to impart an idea—the idea of *tone*, the sugar coating which is so essential in keeping the recipient in the right frame of mind. Politely request, ask plainly for what you want, firmly demand, but never threaten until you are prepared to carry out your threat. This is a safe rule to follow in handling collections.

COLLECTION SYSTEMS

In the successful handling of collections, a requisite is promptness. There must be a system that will insure bringing collections to notice at the right time. Without attempting to lay down specific systems for individual concerns, detailed descriptions of systems that have been found satisfactory in different businesses are given herein.

Duplicate Invoices. The tendency at the present time is to regard each invoice as a separate account, and to regard each as due at the end of the time specified—thirty, sixty, or ninety days. An exception is found in the accounts of city customers. A wholesale merchant may have customers in his own city who buy in small quantities, placing orders nearly every day. The usual rule is to regard these as monthly accounts, the account for one month being due the 15th of the following month. For out-of-town customers, however, the first plan is found more satisfactory.

A certain large manufacturer, whose business is world wide, treats each invoice as a separate account, and handles the collections in a very simple manner. All invoices are made in duplicate, the original going to the customer. From the duplicate, all entries are made on the books. If special terms are granted, these terms are stamped on the back of the duplicate invoice.

[illegible]

Fig. 14. Collection Card for Each Invoice

When it has served the purpose in the accounting department, the duplicate invoice is returned to the collection desk. Here it is filed under the date on which it is due.

The file is a simple arrangement of pigeon holes. A case containing sixty pigeon holes, large enough to hold invoices laid flat, is used. These pigeon holes are divided into two sets of thirty each, one above the other, and each set is numbered from 1 to 30. This number provides for filing ahead sixty days, which is the longest credit term allowed.

In operating the filing system, the two sets of pigeon holes represent alternate months. During January, bills due in March are

Card Tickler. A very convenient method, where it is not deemed advisable to use duplicate invoices, is to fill in a collection card for each invoice.

A card, printed similarly to the form shown in Fig. 14, is filed under the date on which the account is due. Each day, all cards filed under that date are removed for attention. The first step is to compare the cards with the ledger accounts. If the account has been paid, the card is destroyed; if not, a statement is sent and the card filed ahead to the next follow-up date. All letters written and all steps taken are noted on the card, so that in the end it presents a complete history of the efforts made to collect the account.

Name		Rating
Address		
Terms		
Date of Invoice	Amount	Account Due
Statement Sent		Will Draw
Made Draft	Through	Returned
Delinquent Says		Written
Placed for Collection		Final Disposition

Fig. 16. Collection Card for Alphabetical Cross-Indexing

A slightly different form of card, which is used in the same manner, is shown in Fig. 15.

Cross-Indexing. The same objection exists in regard to the use of the tickler card for collections as for other follow-up purposes, which is the difficulty of finding the cards. Every time a card is removed from the file it is necessary to compare it with the ledger to find if the account has been paid.

To overcome the difficulty, a card with an alphabetical tab is used to good advantage. Such a card is shown in Fig. 16. It will be noted that this card bears a tab printed with the letter G. A card

tion. On the first of the month those bearing red tabs are referred to, and if due in the current month, black tabs are substituted.

Monthly Statements. In some houses, it is the practice to follow up collections on the basis of the monthly statement, instead of treating each invoice independently. When this is done the collection record must include a synopsis of the entire account. The

[illegible]

Fig. 18. Collection Card Showing Synopsis of Entire Account

card shown in Fig. 18 is used for following collections on such accounts. This form shows the date and amount of statements, with interest added, date and amount of drafts, and dates and amounts of payments. Other columns are provided for a record of letters, promises, extensions, etc.

This card is handled in exactly the same manner as it would be if used for a single invoice. While the card shown is used in a tickler, it would be improved by the addition of the numbers across the top, which would permit of alphabetical indexing.

Local Collections. Collections from local customers are usually made by collectors. In handling such collections, a system that will enable the office to keep track of the work of each collector is necessary.

One large mercantile concern has solved the problem by using the following system. This concern has a large number of customers

who make frequent purchases. For convenience, the city is divided into four sections, one for each week in the month. Each section is divided into five parts, representing the days of the week from Monday to Friday, inclusive. One collector covers the entire city, calling on each customer once a month.

Arrangements are made with the customers in each section to pay their bills at a certain time each month—the bills of all customers in the

The diagram illustrates three overlapping forms used for tracking collections. The forms are labeled "STATEMENT" and "Chicago Ill. 19--". The forms are designed to be filled out by a collector and then used by the office to track collections. The forms are arranged in a way that shows how they overlap, with the top form partially obscured by the middle one, and the middle one partially obscured by the bottom one. The forms contain fields for "M" (Month) and "In Account With" (The American Mercantile Co.). The forms also have a grid of lines for recording data.

Fig. 19. Triplicate Statement for Collectors

first section are collectible during the first week in the month. Each customer knows, also, on what day of the week he is to expect the collector.

Statements are made Saturday morning for all accounts to be collected the following week. These statements are made in triplicate,

as shown in Fig. 19. Two copies are given to the collector, who arranges them in a file according to his daily routes. One copy is kept in the office, filed by routes.

When the collector makes his call, he receipts one copy of the statement and delivers it to the customer. The second copy is kept by the collector and turned in with the collection. If the customer is not found, or if he fails to pay, both copies of the statement must be turned in by the collector.

Each morning the collector makes his report for the previous day. The cashier compares the collector's report with his copies of the statements, and, as the collector must turn in both of his copies when no payment has been made, a safe check is had on the collector. To make the check more positive, it is the custom of the cashier to mail a copy of the statement to those customers who have made no payments, or partial payments, requesting them to compare with their records and advise if any discrepancies are found. This makes it impossible for the collector to hold out collections without detection.

Collecting from the Ledger. In many houses having no organized credit department, the collections are handled by the bookkeeper. When this work is added to his many other duties, the bookkeeper is obliged to devise some scheme that will eliminate detail—he has no time to make additional records. His method is to follow up collections direct from the ledger.

But there must be some method of bringing the accounts to notice when they require attention—an automatic system. The most simple scheme is shown in Fig. 20. Across the end of the ledger sheet—which is loose-leaf—numbers representing the days of the month are printed, and metal markers, or tabs, are attached over the due dates.

To represent different stages in the collection of the accounts, different colors are used. When a charge is posted to the ledger sheet, a black tab is placed over the date on which the bill falls due. When payments are posted the tabs are removed, provided the account is paid in full; otherwise it is moved forward to the next due date. After the day's remittances are posted, all sheets with black tabs over the current date are referred to, and statements made. At the same time, white tabs are substituted for the black.

The next step is to make drafts for all accounts on which white

No. 1611

Chicago _____ 19 _____

At sight pay to the order of _____

_____ BANK _____

_____ Dollars \$ _____

And Charge to the account of _____

To _____ THE HARTMAN Mfg Co

_____ Treas.

A

No. 1611

Chicago _____ 19 _____

Cashier _____

_____ BANK _____

Find attached draft for _____

_____ Dollars \$ _____

On _____

_____ THE HARTMAN Mfg. Co.

_____ Treas.

B Please present at once and remit proceeds, or return with reasons for nonpayment.

No. 1611

Chicago _____ 19 _____

We have this day drawn on you, for amount named below, through _____

_____ BANK _____

_____ Dollars \$ _____

Please pay when presented

To _____

_____ THE HARTMAN Mfg Co.

_____ Treas.

C

No. 1611

Chicago _____ 19 _____

_____ BANK _____

_____ Dollars \$ _____

To _____

D

Fig. 21. Quadruplicate Draft Form which Includes Letters of Advice to Bank and Drawee

tabs have appeared ten days, that is, on the 10th drafts are made for all accounts with white tabs over the 30th. Blue tabs are then substituted for white. If the draft is returned, a red tab is substituted. The red tabs indicate accounts past due, which are subject to such action as may be considered advisable. This ledger sheet, with the adjustable tabs, insures attention to collections, regardless of the method of filing.

Handling Drafts. When drafts are used extensively, considerable detail is involved in handling the records. Any method that will reduce this detail means a material reduction in the expense of conducting the work of the collection desk.

The usual method is to write the draft and register it in a draft record book. Then the necessary record is made on the collection card. A draft register is used that there may be a record showing the aggregate of drafts outstanding, and the number and amount in the hands of each bank—where drafts are sent direct, instead of through a local bank. The next step is to write a letter of advice to the bank. This method necessitates writing the names of the bank, the drawee, and the amount of the draft three times—on the draft, letter of advice, and draft register.

By the use of properly designed forms, this duplication can be avoided. Fig. 21 shows a set of forms designed for the purpose. *A* is the original draft, *B* is the letter of advice to the bank, *C* is a letter of advice to the drawee, and *D* is the office record. The draft, *A*, is attached to the letter of advice, *B*, and is detached by the bank. The four forms are so printed that the date, name of the bank, amount, and name and address of the drawee register perfectly. The blanks are properly spaced for use in a typewriter, and all copies are made with one writing.

Copies *A* and *B* are mailed to the bank, and *C* to the drawee. From copy *D* the record is made on the collection card, after which it is filed in a card tray, under the name of the bank. This keeps copies of all drafts sent to each bank together, and the total of all drafts outstanding is quickly obtained on an adding machine. When payments are made, or drafts are returned, these copies are removed from the files. Frequent reference to the file insures the necessary follow-up on banks that are slow in reporting.

Installment Collections. Probably the most difficult class of

The collector of installment accounts must have the faculty of meeting and satisfying all sorts of people. He is obliged to listen to hard-luck tales without number, and while sympathizing with the customers, must be patiently persistent. If unable to collect the dollar due, he will accept a half-dollar to keep the account active. So long as he collects *something*, each time a payment is due, he is in a position to make the debtor feel the importance of the contract, but let one

Fig. 22. Contract for Installment Sales

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[illegible]

Fig. 24. Ledger for Installment Accounts

The footings of the money columns are carried forward to the end of the month, when the totals are credited to the sales accounts

The ledger sheets are arranged in alphabetical order, about five-hundred sheets in each binder. Each alphabetical section is separately indexed to afford quick reference to all accounts. If the contract number only is known, reference is had to the installment register, where all contracts are recorded in numerical order.

Cash Receipts. For installment collections, it is well to provide a special cash receipt book. Such a form is shown in Fig. 25. This form is used exclusively for installment receipts, and payments are posted direct to the installment ledger. The total cash for the day is entered as one item in the general cash book.

Statement of Installment Ledger. From an accounting standpoint, installment accounts present certain difficulties not experienced in the handling of other classes of accounts receivable. There is always a question as to the real value of the accounts outstanding, a doubt as to the advisability of including the total balances in a statement of assets. A live account—one on which payments are being made regularly—is legitimately considered as good an asset as any other account receivable, but the value of the delinquent account—when payments are past due—is questionable, and if included in a balance sheet, the nature of the asset should be clearly stated.

That the actual condition of these accounts may be shown on the general ledger, it is the better practice to carry two accounts, representing live and delinquent accounts. Installment sales should be charged to an *Installment Accounts Receivable* account, and payments credited to the same account, which then becomes a general ledger controlling account of the live accounts in the installment ledger. Another account should be opened in the general ledger under some such caption as *Installment Accounts Delinquent*. When accounts become delinquent, they should be transferred by journal entry to this account. The journal entry would be:

Installment Accounts Delinquent

Installment Accounts Receivable

This transfer may be made daily, weekly, or monthly, but the period between transfers should never be longer than one month. Delinquent accounts may be indicated in the installment ledger by placing a metal tab of some distinctive color on the ledger sheet or card, or they may be segregated by transferring them to a special delinquent binder or file.

Daily Report of Installment Accounts

Date _____ 19__

	Department			Department			Totals	
	Live	Delinquent	Total	Live	Delinquent	Total	Live	Delinquent
<input type="radio"/> Amounts Forwarded								
Add								
New Accounts Today								
Delinquents Revived								
Totals								
Deduct								
Cash Collections								
Balances								
Deduct								
Discount and Allowances								
Balances								
Deduct								
Delinquent Today								
Balances								
Deduct								
Delinquents Charged off								
<input type="radio"/> Net Outstanding								

Note. Delinquents Revived are added to LIVE and deducted from DELINQUENTS, Delinquents Today are deducted from LIVE, and added to DELINQUENTS, Delinquents Charged off are deducted from DELINQUENTS.

Signed _____

Mgr Installment Collections

Fig. 26. Daily Report of Installment Accounts for the Credit Man

When a payment is received on a delinquent account, that account immediately becomes live, and the amount should be transferred by journal entry to *Installment Accounts Receivable*. The journal entry would be:

Installment Accounts Receivable

Installment Accounts Delinquent

Each day, the amount of accounts revived—delinquent accounts on which payments have been received—should be ascertained. If it is desired to save the labor of making journal entries daily, a memorandum of these amounts may be kept and a journal entry made at the end of the month.

When a delinquent account reaches the condition where it is considered worthless, the amount should be charged to profit and loss, by the journal entry:

Profit and Loss

Installment Accounts Delinquent

This should be done whenever the credit man carefully examines all delinquent accounts, which should be not less frequently than once a month. When payments are received on these accounts, they should be treated as revived accounts, with proper credit to profit and loss, if revived during the current fiscal period; but if, in the meantime, the books have been closed, they should be treated as new accounts.

It is quite necessary for the credit man to know every day how the installment accounts are running. That he may do this, a daily report, as shown in Fig. 26, should be made by the installment collection clerk. The report form should be in loose-leaf, and if the installment sales are divided by departments, the necessary number of columns to accommodate the departmental records may be provided.

The report is headed with the amounts of accounts outstanding, divided as to live and delinquent. New accounts opened and delinquents revived are added in the live column, and delinquents revived are deducted from the delinquent column. Cash collections, discounts and allowances, and delinquents today are deducted separately from the live accounts, and delinquents today added to the delinquent column. Then the delinquents charged to profit and loss are deducted from the delinquent column. The balances represent the

Contract No. _____ Amount \$ _____

Date _____ Collection Date _____

Name _____

Address _____

Instrument _____ No. _____

Make of Instrument _____

PAYMENTS	Collector																		
	Interest																		
	Principal																		
	Date																		

Fig. 27. Front and Back of Collector's Card

net amount of outstanding accounts, and must agree with the two controlling accounts, *Installment Accounts Receivable* and *Installment Accounts Delinquent*.

Such a report enables the manager or credit man to keep in touch with the actual condition of installment accounts. As a rule, three copies should be made, one for the manager, one for the credit man, and one to be kept on file by the collection clerk.

Filing Contracts. Some houses follow the practice of allowing the collector to carry the original contracts, and in such cases the contracts are filed according to the dates on which payments are due. It is claimed that it is necessary for the collector to have the contract, as the customer is quite liable to lose the duplicate and may ask for particulars about the items purchased.

This plan is not advocated on account of the liability of loss of contracts. If it is desirable for the collector to carry the contract, a third copy should be made for that purpose. Original contracts should be kept in a fire-proof safe, and should be filed in numerical order. The most convenient file is a document file, in which contracts can be filed folded.

Collector's Card. The most convenient method of handling collections is to supply the collector with cards as shown in Fig. 27. On the face of this card is a record of particulars, similar to that shown on the outside of the contract, while the reverse is ruled for a record of payments.

Since all contracts call for payments on certain days of the week or month, it is very necessary that the collection cards be brought to notice on the collection days. A simple method of providing for this is to use a card file equipped with a set of thirty-one numbered guides to represent the days of the month, or a set of guides printed with the days of the week. The cards are filed back of the guides which represent the collection days.

It is customary to divide the city into sections, assigning a collector to each section, the number depending on the size of the city and the number of accounts. It is necessary to use as many files as there are collectors, with an office file added for those who prefer to pay at the office.

Every morning each collector is given the cards on his route, on which payments are due. On his return, he turns in all cards to

of the mail-order business is that customers must be given an opportunity to inspect the goods before they can be expected to make a binding contract for their purchases. Beginners in the mail-order field are quite likely to look on this as an impractical plan, fearing the loss of goods, but experience soon teaches them that it is the only plan on which the business can be successfully conducted.

When experienced mail-order men, with the courage to try out a new idea, experimented on the plan of allowing customers to return goods, they found that the more liberal the offer, the more business they did. This led to the giving of an absolute guaranty, offering to ship goods on approval with the privilege of return for any reason within certain time limits.

As the fear of loss of goods became less pronounced, it was argued that more liberal terms of payment could be granted with safety—if goods could be sold successfully on the installment plan to local customers, why not by mail? A trial proved the plan to be practical, and now many articles are sold by mail on the installment or easy payment plan. Goods are even shipped without an advance payment, either the goods or the first payment to be returned within a certain time limit.

In selling goods by mail on the installment plan, it is necessary to secure a binding order, in which the customer agrees to return the goods within a certain number of days, or make the payments as specified, with an agreement that title to the goods shall be held by the seller until all payments have been made according to contract. The contract must also give the seller the right to recall the goods whenever the customer shall fail to make a single payment as agreed.

The success of the mail-order installment business depends largely on the manner in which collections are handled. Not having the advantage of personal contact with the customer, the collector is obliged to depend on the knowledge of the man which he gains from references and the correspondence of the customer. But the shrewd collector soon learns to read his man from the general tone of the correspondence, and sometimes from the absence of communications from the debtor. When he has learned the character of the man, he can handle each account independently; until then, he is obliged to follow the same line of action in all cases, depending on the law of averages to prove the correctness of his theories.

The Account. Accounts with mail-order installment buyers are handled in a similar manner to those of local buyers. All contracts should be numbered as received, and registered in numerical sequence. The form of register already shown answers the purpose very nicely.

After registering, the particulars of the contract should be entered in the ledger. A form of ledger sheet used by a publishing house is shown in Fig. 29. This is loose-leaf, and does not differ in form from the ordinary balance ledger, except in the particulars given at the

[illegible]

Fig. 30. Mail-Order Collection Card

head of the sheet. Here is shown the name and both residence and business address of the customer, number of contract, monthly payment and due date, references, source of order; price and name of books, and date of shipment. These sheets are filed in post binders, five-hundred sheets to the binder, and indexed alphabetically.

The next step is to enter the contract on a collection card. A satisfactory form is shown in Fig. 30. This is a card 4×6 inches in size, and is practically a duplicate of the ledger sheet. The card is filed in a chronological file under the due date—that is, if payments are due on the 24th of the month the card is filed under that date. Except when removed from the file for the use of the collector, or to

enter payments, the card is always filed under the same date. If it becomes necessary to have an account brought to notice on other than the regular collection dates, a memo is made on a separate card and filed in a special tickler.

Should it become necessary to refer to a card on other than the regular collection dates, reference to the ledger—indexed alphabetically—gives the due date, by which it is quickly located. Sometimes, however, it is desirable to refer to all contracts in a given territory. To make this possible, a card file with indexes printed with the names of states and cities is provided. For each contract a plain 3- \times 5-inch index card is used, the name, address, and contract number only, being entered. This provides a complete set of indexes—alphabetical in the ledger; numerical in the register; by due dates in the collection file; geographical in the card file.

When a payment is received, it is entered in the cash book and posted to both the ledger and the collection card. Every card must be located at the time payments are entered in the ledger, or the customer will very likely receive notices after he has made the payment.

The Collection Follow-Up. The promptness of the follow-up on this class of collections is of the greatest importance—the debtor should not be given the excuse that he failed to receive a notice. Though not provided for in the contract, the debtor expects a notice of every payment due.

When the goods are shipped, a formal notice of shipment should be mailed, and if the first payment has not been made, it should be requested. In ten days, or after the approval time limit has expired, a second notice should be mailed, provided no payment has been received. This can be a formal notice, and should assume that the goods are entirely satisfactory, and the same time calling attention to the fact that the first payment is past due. If this does not bring a remittance within ten days, it is well to send a draft notice. This notice should go into the conditions of the contract in some detail, and, without assuming a threatening attitude, it should assume that if payment is not received within five days it is the desire of the debtor that a draft be made. Either the notice or the draft will usually bring the first payment, or the return of the goods.

Each month, a formal statement showing the exact condition of the account should be mailed a few days before the due date. It is

filed in a document file. The objectionable feature of this method is that the papers must be unfolded for reference. A better plan is to use a correspondence folder, such as is used in the vertical file, in which the papers can be kept flat.

Whatever style of folder is used, all papers should be fastened—either pasted, or by means of a paper fastener. On the outside of the folder should be written the names of debtor and creditor, and the number of the claim. The balance of the space on the folder can be used for recording special information about the claim from time to time. These claim folders should be filed numerically, according to claim numbers.

<i>Cause of action</i>	<i>Court</i>	<i>Counsel</i>	<i>Plff.</i>				<i>Deft.</i>
<i>Summons issued</i>	<i>Continuance</i>	<i>Judgement-amount</i>					
<i>Returnable</i>	<i>Officer</i>	<i>Costs</i>					
<i>Served</i>	<i>Fees</i>	<i>Transcript</i>					
<i>Execution issued</i>	<i>Officer</i>	<i>Receipts</i>					
<i>Delivered</i>	<i>Fees</i>	<i>Disbursements</i>					
<i>Returned</i>							
<i>Remarks</i>							

Fig. 33. Back of Attorney's Collection Card

For a convenient record for daily reference, giving a brief history of the claim, a card is found very satisfactory. The folders are somewhat bulky and inconvenient for quick reference, and, except in special cases, it is not necessary to refer to all of the papers. Brief notes, which can be made on a card, will answer every purpose.

A convenient record form is shown in Fig. 32, which is printed on a card 4 × 6 inches in size. This gives the particulars of the receipt of the claim, the amount, date, and number, with a record of collections, fees, and remittances. A card is made for each claim, and filed alphabetically under the name of the debtor. The reverse

of the card is printed as shown in Fig. 33. This shows the different steps taken to enforce collection.

The card file provides an index to all debtors against whom claims are on file, while both the register and the file of folders provide numerical indexes. But it is the creditor who is the client of the attorney, and it is very necessary that he be in a position to refer to or report on all claims received from any client. This necessitates another index to creditors, which is provided for in the card form shown in Fig. 34.

<i>Creditor</i>			
<i>Address</i>			
<i>No</i>	<i>Debtor</i>	<i>Returned</i>	

Fig. 34. Index to Creditors for Attorney

The card is headed with the name and address of the creditor, below which is a list of all claims filed by him. When a claim is returned—paid or unpaid—the date is entered on this card, so that the record shows only unpaid claims. These cards are filed alphabetically, under the names of the creditors.

A follow-up of the claims is provided by a plain index card on which is written the name of the debtor and number of the claim. This card is filed in a tickler, under the date on which it is desired to follow up the claim. This serves as a memorandum only, all records being made on the claim card or the folder.

BILLING AND ORDER RECORDING

Introduction. The survival of the fittest applies most forcefully to business men and their methods. The success of the men depends upon their methods; the efficiency of the methods, upon the men. Large corporations of to-day would be impossible without method. They plan their work, and method tells them daily whether they are working their plan successfully or unsuccessfully.

It is commonly supposed by the smaller business men that method is a result of business growth. Sometimes it is. If a business grows fast, better methods become a necessity. Without method any business must remain small—with few exceptions, just as small as the capacity of the man at the helm. "To the extent which system is intelligently used, it multiplies one's powers of achievement in all directions."

The importance of the order billing and shipping departments, the amount of waste effort therein, and the relation of each to all other branches of the business, make them a most interesting and profitable study for the progressive business student, whether he be a beginner, an executive, or an owner. To attain quick results and to eliminate useless head, hand, and leg work, learn the capacity, capability, and usefulness of office machinery and the short-cut methods made possible thereby.

During the last eight years there has been a tremendous amount of improvement made both in this country and abroad in handling office work, changing from hand to machine methods. Most of these improvements have been literally forced upon the business men of the country by specialty companies having labor-saving devices for sale. Wide-awake merchants have in some cases left the installation of such devices to office people who feared the loss of their positions through the use of them.

One of the pioneers in the development of the class of work above mentioned is Hiram J. Halle, who overcame all obstacles, and gave the impetus to modern billing methods which has been such a help to our economic results in office practice. The typewriter companies have followed his lead and equipped cylinder machines with the necessary attachments for accomplishing almost any desired result, except writing in a bound book. In order to overcome this obstacle, the McMillan and the Empire and some other loose-leaf books have been invented. These books are loose-leaf only while they are being written upon; after completion they are permanently bound by a simple device, and become as secure as a sewed book.

In any book of this character, the student must consider the text as a series of problems, with explanations of how each has been solved. If the student does not learn to exercise his own powers of originality as a result of a study of this volume, he will fail to secure the result intended. Rarely, if ever, will two problems be met in two commercial establishments which will be alike. The judgment of the person installing the system will determine the best method to be used under certain conditions.

Before starting in on the regular work, it will not be out of place to give a comparison of the methods of business in various foreign countries.

The rush in the business life of the United States is accounted for by our fast growth and national desire to accumulate wealth. Commercial concerns have grown both fast and slowly to undreamed proportions. Strenuous efforts have been made to secure business, and then a corresponding effort has been made to effect the small economies which in a large business aggregate large sums. As a nation, we are rushing at headlong speed, seeking all the means which will give us results. In transportation we advance from steam to electricity; in social life we turn from horses and carriages to automobiles; in commercial life we use every known device to short-cut the work and effect economies—adding machines, typewriters, cash registers, envelope openers, envelope sealers, multigraphs, etc.

A distinct surprise awaits the person visiting Europe on a mission of introducing "short-cut" methods. While we are in business to make all the money we can, most of the Europeans are in business to make a living, or reasonable earnings.

Imagine the surprise of the writer when told by the managing director of one of the largest department stores in London that they did not care to save the services of thirty-five clerks (which was possible by modern methods) as they were making a certain amount of money each year, and did not care to make any more; besides, they did not wish to put these people out of positions. It is not an easy matter to secure positions in England. Employes are very diligent and pay strict attention to business. A manager of one of the large banks in London said that once a clerk is hired he is discharged for gross misconduct only—not even for incompetency. There are young men clerks (pronounced *clarks*) in the Bank of England who are doing the same work for the bank as done by their grandfathers. There are old men in the Bank of England to-day who still use quill pens and the sand box instead of a blotter. There are, however, adding machines being used there by the younger generation, and they are of more use to them than to us in a way, as their currency is so much more difficult to add.

Each year, more improved methods are being introduced into England. Typewriters have been used for a number of years, and of late years adding machines have made headway. It is more difficult there to introduce new methods, but, once installed, it is difficult to dislodge them for other ones.

Some of the wholesale houses have very old methods. In one house in London, an order was copied twenty-nine times from the time it was received until it was finally charged. The concern was over two hundred years old and had never made any effort to improve its methods. It had four boys whose duty it was to hunt orders lost about the warerooms. A system of manifolding was installed, which eliminated so much waste of time in copying and recopying orders that it was difficult to convince the firm that something had not been overlooked. After four weeks they were delighted.

An American going abroad is much impressed by the deliberation of Europeans and is inclined to criticise them for it. After a time, they can point out enough Americans who have worn out at forty years of age, and are in Europe seeking health, to convince them that perhaps the Europeans are not wholly wrong.

In Germany, the railroads are controlled by the government. When one attempts to introduce short-cut methods, he is confronted

by the fact that work is needed to keep busy old soldiers for whom the government has to care. In asking an agent of an American firm dealing in labor-saving devices why he did not use any of the devices, the answer was given that in Germany the young men work three years for nothing; he did not feel the necessity of doing away with any of them. At the end of three years' work in an office, a young man receives a diploma for efficiency, if he has attained it. The government exercises a strict supervision over all commercial concerns, and inspects their books at periodic intervals. Commercial failures are therefore more rare there than at home. Fraudulent schemes are dealt with severely.

There are many large firms in Germany, both jobbers and manufacturers, that are striving to be progressive. The Siemens-Halske Electric Co. are just as progressive in their order and billing methods as any American firm in the same line. To show the attention to details given by the Germans—a managing director of one of the large department stores in Berlin, when asked how long he had lived in the United States, said he had never been there. Upon being complimented upon his American accent, he replied that when talking to an American he always used the American accent, slang, intonation, etc., and when talking to an Englishman he changed his accent, etc., to correspond. He had all the American devices in his accounting department which one would find in any department store in the United States, and sent out monthly typewritten bills the same as John Wanamaker, Altman, and others of New York, and the same as all large department stores do in all American cities.

In France, the commercial houses are very conservative and are subject to the same government supervision as practiced in Germany. In one of the railroad companies, the *Chemin de fer du Nord*, they use the manibill system of billing (whereby each shipment is billed separately and manifolded on a form of seven sheets) which is the shortest form of billing known, but which has never been adopted by American railroads on account of the bulk of papers increasing too rapidly. The present American method is to put several shipments on a way bill for shipments to any given town, and when the goods arrive at the given town, the receiving stations make out separate freight bills for each shipment, copying the information from the blanket way bill made out at the forwarding station. Some

of the American railroads are now adopting the special roll machine for car accountants' work, as shown in Fig. 1.

The French people do not, as a rule, form large companies like the Americans and Germans and English. There are a large num-



Fig. 1. Underwood Special Roll Machine for Car Accountants' Work

ber of small manufacturers and jobbers in France. The large department stores, like the Louvre, in Paris, are run on a strictly cash basis.

MACHINES FOR MANIFOLDING

Neither the billing machines (book-writing machines) nor typewriters were originally intended for heavy manifolding work. The flat-bed billing machines were originally invented to write in books used for court records, sales books, etc. The book was to remain

stationary and the machine was to travel over the books. The flat-bed machines are the only machines made for writing in bound books—the latter are being gradually replaced by loose-leaf books. A flat-bed machine for bound books is shown in Fig. 2.

The typewriter was originally intended to write on one sheet of paper only. If extra copies were needed, a copying ribbon was used,

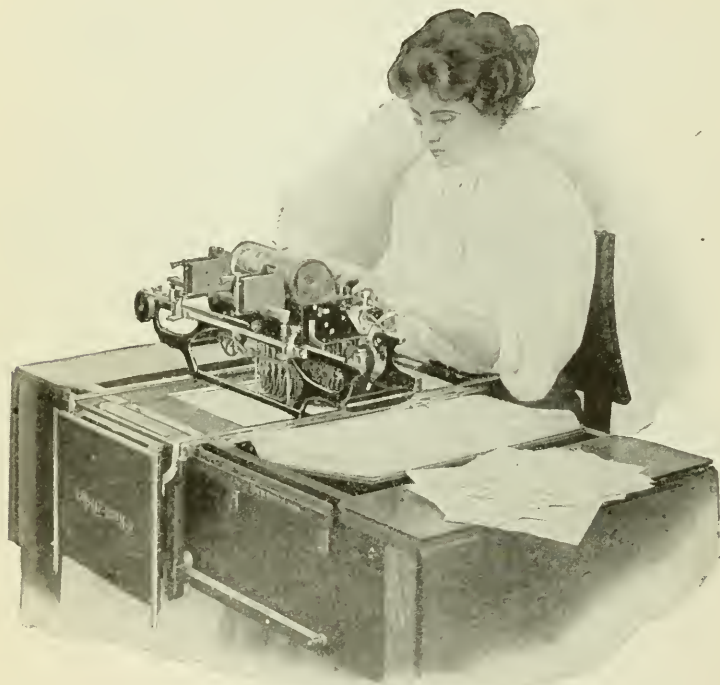


Fig. 2. Flat-Bed Typewriter for Bound Books. *Elliott-Fisher Co.*

and a wet copy taken in a letter-press book. In the evolution from bound books (official record and commercial) to loose sheets, the book typewriter was equipped with devices for holding loose sheets of paper—used alone or in connection with books. In the evolution from letter-press copies to carbon copies, the typewriter was equipped with hard-rubber and brass platens for taking from one to twenty-five copies, and in some cases even more, with extremely thin paper and carbon paper.

The flat-bed billing machines are equipped with heavier type-bar springs than the cylinder machines. The operator in depressing the keys overcomes the additional resistance to the touch, due to the heavier type-bar springs, and strikes a heavy blow on the paper, making a good manifold copy in all cases. The operator on a cylinder



Fig. 3. Underwood Billing Machine

billing machine strikes a heavier blow than usual to secure the heavy manifolding results. The heavier the blow, the clearer the result on a billing machine. The Underwood billing machine is shown in Fig. 3.

All typewriters equipped with special attachments for holding the sales sheets, invoices, and orders are called *cylinder billing machines*. The paper upon which the machine writes is held by, and passes over and around, a round rubber roll, the cylinder.

This is in contrast to the flat-bed billing machines (or book

typewriters) on which the paper lies flat on a rubber plate while the machine moves over the paper.

Development of Billing Machines. This text has been prepared by taking the simplest forms of billing and order work, and leading up gradually to the more complicated forms. This is actually what took place in the improvement of office and factory work.

A bill and a copy were first made—an extra sheet was made for some additional purpose. The advantages of doing two or three things at once led to further investigation. This resulted in still additional sheets being used for other purposes. Every time an additional sheet was added, the labor of typewriting that sheet separately was eliminated.

Gradually it developed that it would be useful to copy a part only of the typewritten information on some of the under sheets. Means were found for accomplishing this. For instance, on an order form, it was desirable to have the prices show on the office copy, but not on the copy which was intended for the warehouse or factory.

In some cases it was desirable to write all the information on the top copies and split up the information thereon on the sheets underneath. The final development of all the above ideas is embodied in the compound form, in which all sheets for the office, customer, warehouse, factory, shipping room, and loading platform are typewritten at one operation, and the invoice and duplicate finished as a separate operation.

Wholesale and manufacturing lines are used mostly in this text to illustrate the evolution and improvement of billing and order work. Some of the conditions which have to be considered in installing office systems are as follows:

Whether the orders are received from customers or salesmen or both, and which are in the majority.

Whether the goods are carried in stock or manufactured or bought outside, or all of these.

Whether the orders can be filled completely, or nearly so.

Whether or not the factory may know the prices.

Whether the goods are shipped by freight, mail, express, or all of these.

Whether copies of the bills have to be made for any other purpose.
Whether a copy of the sales sheet has to be sent to the home office, or made for any department.

If additional copies of either are necessary, what colors to use for readily distinguishing them.

How many ledger clerks, and how to sort their work to the best advantage so that each clerk handles his work only.

How to file office and factory copies for quick reference.

How to plan all the above so that improper filing of sheets does not destroy the chain of record.

The reasons for these considerations will be better appreciated after further progress is made.

If the business student learns the capabilities of office machinery, the advantage of manifolding, the use of colored papers, and the important feature of correctly grouping statistics (which is almost an art in itself), he will have accomplished much. He should learn also to develop his own power of originality and suggestion.

The natural order in which order billing and shipping ought to be presented is the way in which the transactions occur. Methods of billing (making out invoices) in many businesses govern the manner in which the orders are made up, and therefore will be considered first.

In order to more clearly bring out the advantages of new methods, it is deemed advisable to consider old-style methods and contrast them with the newer ideas. By showing the weak points in the older methods and why the new are better, the gradual evolution and improvements can be traced.

Old-Style Method of Billing and Making Wet Copy in Tissue Book. There are enough firms who still follow this plan of billing to resent the term "old-style." The best that can be said for this plan is that it is shorter than writing the bill-and-sales book, or sales journal, separately. The wet copy takes the place of re-writing the bill. One objection to this method of copying bills is that if all the bills are copied some of them are either blurred or are too light when the copy has dried on the tissue leaf. This is a difficulty which can be corrected by careful attention.

The worst feature is that one never knows whether all the

bills have been copied, and there is no way of knowing this unless the copies in the tissue book are checked back with the orders from which the bills were made. Many firms spend thousands of dollars in advertising, traveling expense, labor, etc., ship out and bill large invoices of goods, "double check" the invoices, and leave the copying of the invoices in tissue books to a young office boy. They never think to check back the invoices with the orders to be absolutely certain that the goods have been *charged* as well as invoiced (billed out).

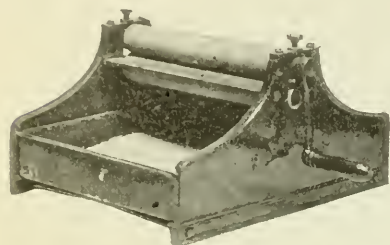


Fig. 4. Old-Style Cloth Bath. *Underwood Typewriter Co.*

If one should ask them how they know that all invoices are charged (or copied into the tissue books) the invariable answer would be, "Oh! we never lose any bills before they are copied." Ask them how they know none are lost and, after thinking a while, they will admit that they really do not know *for sure*. They begin to check back the tissue book after some customer brings in a bill for payment which has never been copied into the tissue book, and hence has not been posted to the customer's account.

Fig. 4 shows the old-style cloth bath, Fig. 5 the old-style copy press, and Fig. 6 the old-style sales book (tissue paper leaves).

LOOSE-LEAF SALES SHEETS AND INVOICES

This style of billing was the first variation from the plan of using copying ink, or pencil, on invoices and then transferring the ink to tissue paper books, by wetting the leaves with water and then absorbing the surplus water with paper blotters. Or this was done by placing damp cloths on the under side of the leaf and cover-

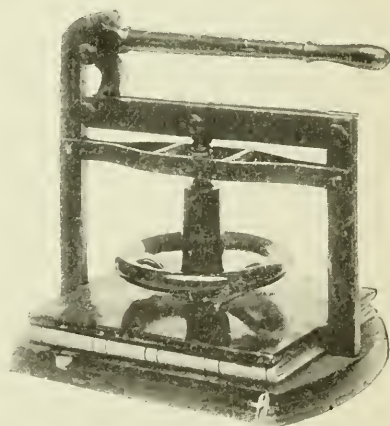


Fig. 5. Old-Style Copy Press. *Underwood Typewriter Co.*

ing it with a leaf, placing the invoice downward on the tissue leaf, closing the book, and placing it in a copying press. The ink from the invoice was sufficiently transferred to the tissue paper to make an impression thereon.

If the person who did the copying did not use due care, the paper would be too wet and the ink would run and blur the copy and the invoice. If two invoices were accidentally picked up by the person copying, the top invoice would not be copied on the tissue sheet.

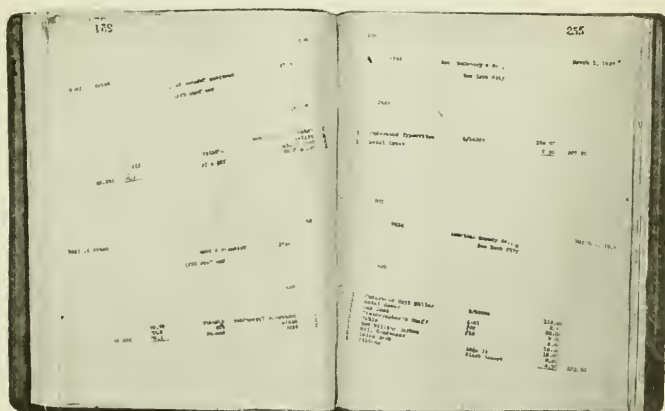


Fig. 6. Old-Style Sales Book. *Underwood Typewriter Co.*

This is a most serious objection, for the reason that the copy in the tissue was used as record of the invoice for the purpose of posting into the ledger.

Another difficulty was the usual one experienced through the use of bound books in office work. Only one person can use a book at one time. If Fayette Henry, the accountant, was using the tissue-copy book, and Dave Pike, the order clerk, wanted to use it to see if all invoices had been copied by the office boy, he had to wait on Fayette Henry. The loose-leaf sales sheet shown in Fig. 7, with the pages serially numbered and placed in proper binders after each sheet has been filed, overcomes all of the difficulties mentioned — with many additional benefits.

The loose-leaf sales sheet and invoice were first used with the flat-bed billing machine, the sales sheet being held in position by

being placed over studs (round metal posts), which fitted into the punched holes in the edge of the paper. These punched holes were used ultimately for fitting over the metal binder posts in the loose-leaf binders. The invoices were wider than the regular-size invoice and were perforated about 1 inch or $1\frac{1}{2}$ inches from the left side, as shown in Fig. 8. To the left of the perforated edge were two small holes about $2\frac{3}{4}$ inches apart, which fitted over two small studs on a sliding bill-holder device. This plan provided a means of hold-

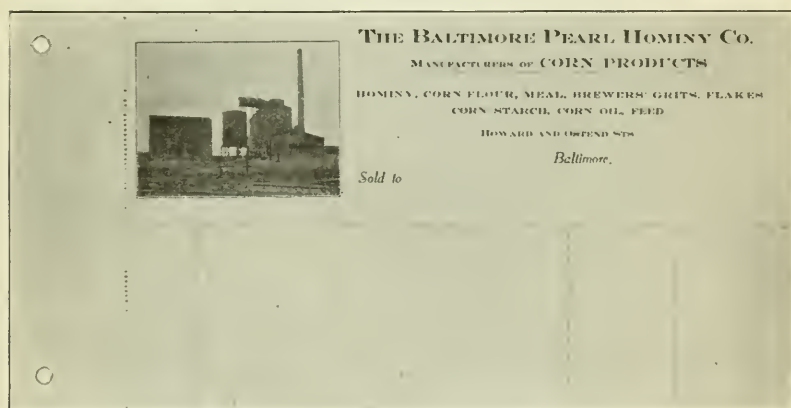


Fig. 8. Invoice for Use on Billing Machine

ing the large sheet and invoice in proper relation to each other. A piece of carbon paper the same size as the sales sheet was placed between the invoice and the sales sheet. This ruling of the sales sheet is shown in Fig. 9.

When an invoice was written on the billing machine, it was manifolded on the sales sheet beneath. When the invoice was finished it was ready to mail—no delay in copying invoices, no blurred invoices through careless copying. No fading of the manifolded copy where black carbon paper was used. Inks are not made of indestructible carbons as black carbon paper is made. A condensed billing or invoicing loose-leaf sales book for this purpose is shown in Fig. 10.

The following are some of the many good features of the condensed system, as it is in use to-day, briefly stated:

[illegible]

Fig. 9. Loose-Leaf Sales Sheet

Bill and entry in sales book are obtained at one operation.

Entries upon sales book agree absolutely with bill rendered.

The bill clerk becomes bill and entry clerk combined.

There is no danger of a bill being rendered without the proper charge being made.

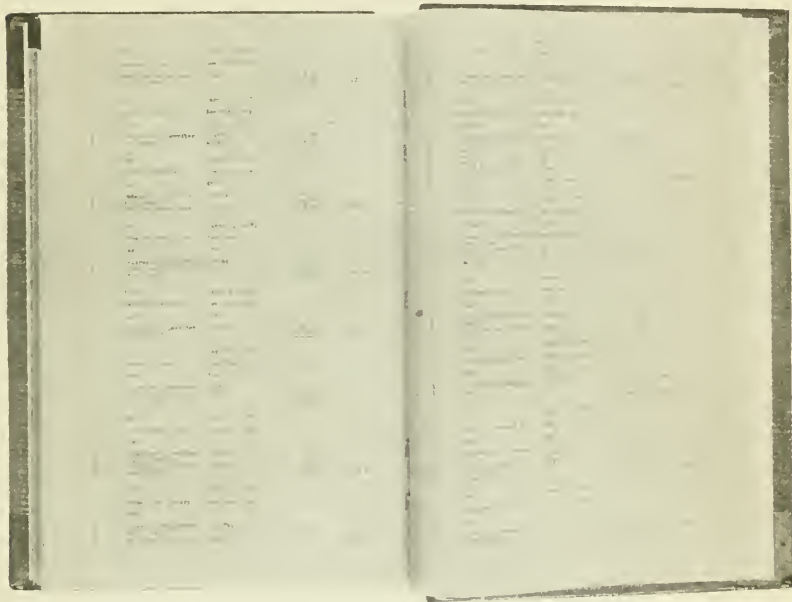


Fig. 10. Condensed Billing or Invoicing Loose-Leaf Sales Book.
Underwood Typewriter Co.

Entries under this system occupy but one-fourth the space required for those written with the pen.

There is no waste space upon sales sheet.

Both sides of the sales sheet may be utilized.

The saving in vault space alone is worthy of special consideration.

In recent years, the typewriter companies have placed devices on their typewriters which permit of the sales sheet being held independently of the invoices. This permits one to hold the large sales sheet in the machine until enough invoices have been manifolded thereon to cover the page, at which time the sales sheet is reversed. The invoices can be placed in the machine and removed therefrom after being written, without interfering with the sales sheet. No

extra width of invoice is required, which permits of old stationery being used in the form of invoices. The flat-bed machines can use old stationery, but not quite so well. However, when billing by machinery, it is false economy to use stationery designed for pen work. The reasons for this will be touched upon later.

The use of two ledgers necessitates the use of two columns at the right side of the page. All names from *A* to *L* are placed in the first column; all names from *M* to *Z* are placed in the second. For instance, an invoice reading as shown in the sales journal, Fig. 11, illustrates the idea of writing the totals in the two columns at the right side of sheet according to the initials of the last name of the firm or the individual, as the respective ledgers are arranged in that manner. If at the end of the month the first column shows a total of \$3,000.00 the book keeper knows that he has posted that amount into Ledger *A-L*, etc.

The above plan enables the bookkeeper to add separately the totals which are posted to the respective ledgers. The desire to separate the charges to a country ledger and a city ledger can be accomplished by using two columns in the same way.

The desire to place all credit memoranda in the sales book can be accomplished by using two columns in the sales book as noted above. The first column is used for the charges, and the second one for entering the credits. One difficulty arises in connection with this plan. Credits are liable to be entered in the debit column. To obviate this, the invoices are made just wide enough to reach over the first column, the credit memoranda are made wider to reach over the last column. When an amount is written in the last column of the invoice, it manifolds in the proper column of the sales sheet. The same is true of an amount written in the last column of a credit memo.

This subdivision of columns is carried a step further to permit of the analyzation of sales in several ways.

According to classes of goods, as follows:

Date	Description	✓	Total	Hay	Grain	Coal	Lime	Misc.

SALES JOURNAL					
		DESCRIPTION	V	A-L	M-Z
		John Jones & Co. Baltimore, Md.			
		30 days net			
12		doz. Mens' Calf shoes	@ 1 50	18 00	
6		" " "	@ 2 00	<u>12 00</u>	
				<u>30 00</u>	
				30 00	
		A. B. Madigan & Co. Reading, Pa.			
		2% 10 days			
24		prs. Chi. shoes	@ 75	18 00	
12		" " "	@ 1 00	<u>12 00</u>	
				<u>30 00</u>	
					30 00
		TOTAL			

Fig. 11. Sales Journal Arranged for Distribution to Two Ledgers

According to territory, as follows:

Date	Description	✓	Total	City	Country	Foreign	Special

According to salesmen, as follows:

Date	Description	✓	Total	D. Jones	A. Dick	B. Carter	L. Piper

To separate the sale of regular goods from goods which are being sold on consignment, as follows:

Date	Description	✓	Total	Regular	Consig't No. 1	No. 2

Generally the invoice is wide enough to reach over the total column only, as shown in Fig. 12. Therefore, a total amount written in the total column of the invoice will manifold onto the sales sheet, and in the column marked *Total*.

A wide-carriage billing machine, if used, can be adjusted with tabulator stops to jump to any column desired. The total amount is then written therein a second time. The amount of the total column should always equal the total of all the columns placed to the right of the total column. This plan eliminates the old way of waiting until the end of the month, and then laboriously going over the

sales book with one total column only, and picking out the various items according to the classification wanted.

The work should be planned in a manner which permits of

LANDERS, FRARY & CLARK.

HARDWARE SALES M-R

697

TOTAL SA LARDE STOCK

Nov 8 1908

Landers Frary & Clark

New York City

Freight

N Y

#1270

1	Gre Enam	98642		8 00
3	Lox Butcher Ems	16352	4 00	12 00
1	Only Cake Knife	11742		4 00
1	* Cold Meat Fork	4703		3 00
4	* Buttery Kns	7363	2 00	6 00
1/2	Dos Bread & Buttery Ems	7774	10	5 00

11/2/08

Order Complete

(c)

LANDERS, FRARY & CLARK.
NEW BRITAIN, CONN. U.S.A.

NEW YORK
CHICAGO
BOSTON
BUTTE

TERMS

SOLD TO

1 1270

Fig. 12. Loose-Leaf Sales Sheet and Invoices with Columns for Distribution of Labor and Stock

each day's work being finished each day—leaving nothing to accumulate until the end of the month, necessitating the retracing of steps to secure certain statistical information.

In certain lines of business it is desirable to make two sales sheets,

one of which is retained in a binder for an office record and the other is used for various purposes. It can be used as record of sales from a branch to a home office, each page being numbered in duplicate, and of a distinctive color. This is the plan used all over the world by the Standard Oil Company. As the sales sheets arrive at the home office, they are placed in their respective binders and are gradually made into a built-up book. The loss of a sheet would be instantly detected by the missing page number.

A large French perfumery firm in New York pursues this plan, and sends to Paris the duplicate sales sheet on thin paper. It gives the home office a fine record of every invoice sent out to any customer by the branch office or warehouse. As several invoices can be manifolded on each page, and on both sides of the sheet, it is the most economical method of billing as far as stationery is involved. The name *condensed billing* indicates this fact.

In other instances, the duplicate sales sheet is wide enough only to allow quantity and description of goods to be manifolded thereon, prices and extensions not showing. This narrow sheet can be used for posting to the stock records without disclosing to that department the prices at which the particular goods have been sold. This form of the sales sheet is shown in Fig 13.

Duplicate Invoices. There are many reasons, in various lines, why duplicate invoices are desirable and even necessary. Some customers request invoices rendered in duplicate with one copy complete, the other minus the prices and extensions. To accomplish this, it is either necessary to place a piece of paper between the carbon and duplicate invoice in such a manner that the prices and extensions will not copy, or to use a short invoice cut off at the left of the price column, or to use a short piece of carbon paper between the original and second, or duplicate, invoice.

It is desirable to make extra copies of invoices or duplicates for the use of various departments of a business, for instance, analysis of sales by salesmen. Where a company employs a large number of salesmen, it is very convenient to file in binders a duplicate copy of all invoices sold by each salesman, using a binder for each salesman. This is preferable to having separate columns in the sales book (sales sheets in binders). The latter method permits each salesman to see what every other salesman is doing.

SMITH & WILSON

[illegible]

Fig. 13. Sales Sheet for Condensed Billing

Department Records. A separate binder allows each man to consult his record without inconvenience to any other one. In large companies having a traffic department, it is necessary to provide a duplicate copy of each invoice for the record, showing complete details of every charge.

A distinction should be made between those firms who make their invoices before the goods are shipped, and those who make the invoices after the goods have been shipped. In the cloak business, for instance, the goods are generally billed before the goods are shipped, the invoice being placed in an envelope and packed with the goods.

Oftimes the goods are manufactured in proper quantities, properly checked from the order to the packers' table, and then packed improperly—some customer receiving too many garments, another, too few. Yet the order will be properly checked. To obviate this difficulty, a scheme was devised whereby the packer received a duplicate typewritten copy of the bill (or invoice) showing everything but the quantities. This makes it necessary for the packer to count all the garments and mark down in pencil on this copy of the bill the quantity of each style and kind to be shipped. Before the goods are shipped, the packer's copy of the invoice, with his quantities marked in lead pencil, is compared with the quantities charged on the sales sheet. This scheme forces the packer to count all garments instead of double checking someone else's figures in an absent-minded, or even neglectful, way.

This is accomplished by placing a narrow strip of paper over the quantity column of the duplicate invoice, but under the carbon paper. The quantity figures manifold onto the strip of paper instead of onto the duplicate invoice. This plan is termed *using a blind*. The narrow strip of paper between the invoice and duplicate is the *blind* described a little further on.

The next step in short cutting work is the printing of a label in connection with the invoice and sales sheet. In the book business, where it is generally possible to fill orders from stock, and where the invoice can be made before the goods are shipped, it is possible to place a small piece of paper (the label) between a folded invoice in such a manner that when the name is written on the invoice it manifolds onto the label as well as onto the duplicate invoice and sales sheet.

Analysis of Quantities and Amounts. In certain lines of business which sell three or four varieties of goods, it is desirable to analyze the weights or quantities in the proper columns, which in turn manifold onto the sales sheets, as shown in Fig. 14.

	BRASS RODS	BRASS BARS	COPPER BARS	ZINC BARS		
	3000	2500		1000	@ 20	\$ 60.00
					@ 21	\$ 52.00
					@ 15	\$ 15.00

Fig. 14. Sales Sheet for Analyzing Quantities and Amounts of Goods

This saves a great deal of time as compared with making out the same invoice in the following way:

3000 # Brass Rods	@ 20	\$60.00
2500 # Brass Bars	@ 21	\$52.50
1000 # Zinc Bars	@ 15	\$15.00

By following the first plan, all of the weights for the respective classes of goods will be manifolded into the proper columns, and it is therefore an easy matter to total each column, and at the end of the month the classification of sales will be totaled according to weights as well as according to dollars and cents. The invoice is ruled to match the sales sheet.

Information on Sales Sheet Not on Invoice. In certain lines of business, such as wire-screen manufacture, it is desirable at times to substitute the next size of wire in order to fill orders promptly. In such cases, it is necessary to have the invoice show the size of wire ordered, but to have the sales sheet show the size really sent. It would seem impossible therefore to write *No. 8 wire* on the invoice and have *No. 9 wire* manifold on the sales sheet.

The idea used to accomplish the desired result is to place the invoice in such a position with relation to the sales sheet that a margin is left on the left-hand side of the sales sheet, which would permit the operator typewriting directly on the sales sheet, and placing thereon the actual size of the wire shipped. The size ordered would be written on the invoice in the regular manner, and of course would manifold onto the sales sheet.

There are other cases where it is desirable to use this idea. For instance, wholesale dry goods firms when purchasing dry goods from eastern manufacturers request the latter when billing to use lot numbers furnished by the purchaser. It is also necessary for the manufacturers to bill the goods according to their own lot numbers. Hence it becomes necessary to have both the customer's lot number and their own on the sales sheet. This is accomplished by writing their own lot numbers directly upon the sales sheets at the left of the invoice and then making the invoice out in the regular way. This idea carries out the customer's wishes, and always gives a comparison of lot numbers to the manufacturers on their sales sheets. Flat-bed machines require wider invoice, Fig. 15.

Goods Purchased Outside. It is possible to make a short cut in some lines of business where the goods sold are not kept in stock but are purchased from other firms in the same city. When placing the invoice in the billing machine over the sales sheet, requisition blanks in duplicate or triplicate can also be placed in the machine with the invoice, and the items which have to be ordered outside written first on the invoice. When all of these items have been entered on the invoice, the requisition blanks may be removed, and the invoice and sales sheet left in the billing machine, putting the remaining items which are to be shipped and charged on the invoice (sales sheet). This occurs where orders can be shipped complete.

This plan can also be used when writing up the order, where the billing is done after the goods are shipped. It is to be remembered that there is a great distinction to be made in handling the billing work of firms who are able to fill their own orders complete, as contrasted with those firms who have to wait until goods are shipped in order to determine which items to bill. Some firms who always carry a complete stock are able to make up an invoice and order blank, a label for the express package, and a charge on the sales sheet,

simultaneously, because they know that they can ship every item called for, and consequently do not have to wait to see what items are shipped before billing them.

Unit Billing. The unit idea in billing has grown considerably in the last few years, notwithstanding that the size of the bills have to be uniform, and as large an invoice has to be used for one item as for a large bill. Many firms prefer the unit idea to the condensed sales sheet idea.

This is due chiefly to the elasticity of the scheme. The duplicate, triplicate, or quadruplicate of the invoice can be sorted in any desirable way. It is especially convenient for bookkeepers to sort duplicates of the invoices alphabetically, and save a great deal of time in posting to loose-leaf ledgers arranged alphabetically, in the same manner. (In mentioning loose-leaf ledgers, card-ledgers are always included, as the same principles are applied to one as to the other, as far as accounting methods are concerned.) It is easier to handle unit billing forms on the typewriters with billing attachments, which is an added reason that many firms prefer to use them. Some of these forms are shown in Fig. 16.

Another idea to be recommended is the color scheme, whereby each copy of the invoice is manifolded onto a different-colored piece of paper. In sorting the various copies for different departments, different colors will greatly facilitate the recognition of various sheets, and the uses or departments for which each is intended.

ORDER WORK OF WHOLESALE GROCERS

There are hardly two firms who handle their order work alike. The first consideration in treating order methods is to distinguish the classes of business in which the orders are made up ready for execution by the salesman, from those which are received from customers and transcribed on typewriters. The first class will be discussed separately from the second.

Wholesale grocers, druggists, and similar lines receive the great majority of their orders from the salesmen in the field. After the orders are opened, the first step is to stamp on each order a number with an automatic numbering machine. After this is done they are copied into an order register as follows:

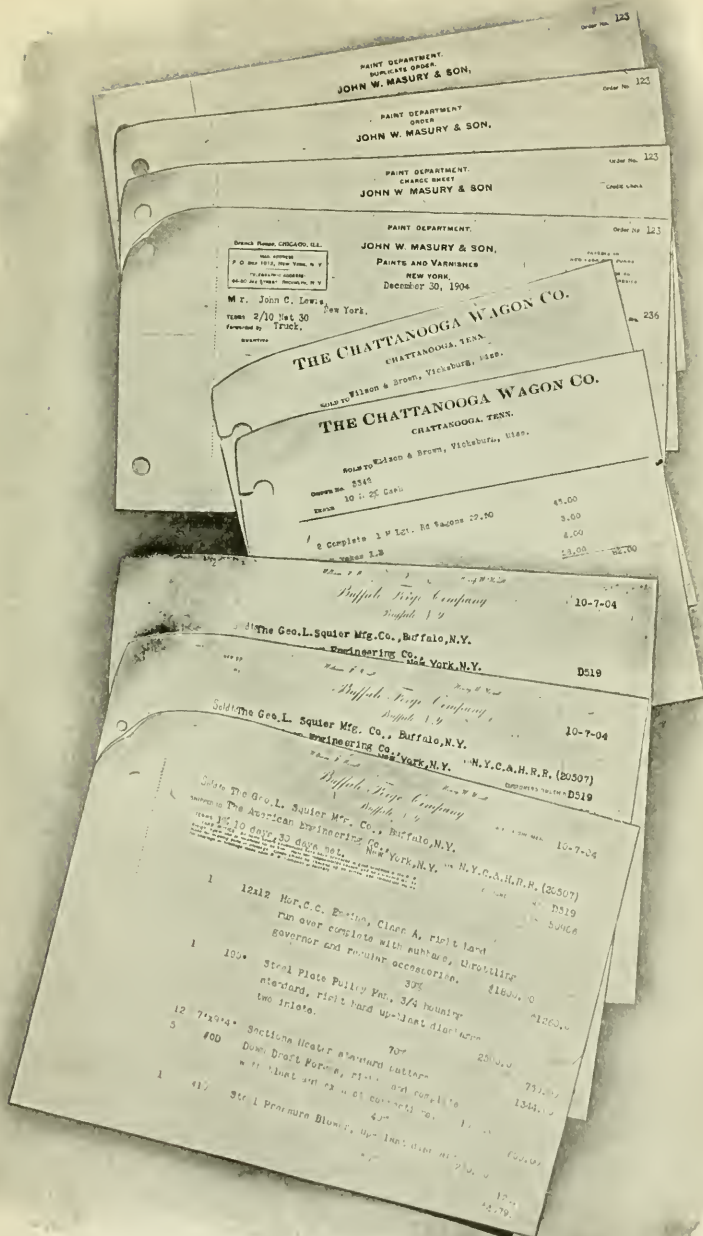


Fig. 16. Samples of Unit Billing. Remington Typewriter Co.

1012 John Smith & Co.,	Plainfield, N. J.
1013 A. B. Jones & Bro.,	Providence, R. I.
1014 U. J. Benedict,	Elmira, N. Y.
1015 Grace Barnes & Co.,	Alliance, Ohio.

After the orders are filled and charged, they are checked on the order register. About once a week all of the unchecked numbers on the order register are compared with the unfilled orders. If an order should become lost, the fact would not remain unknown longer than one week's time.

It should always be remembered that in case an order is not completely filled and is "back ordered," the back order should always show the original order number in order to prevent confusion. A little practical experience will quickly show how wrong it is to use a new number for a back order.

Back Orders. In the problem of systematizing any kind of business, the question of back orders and the proper method of handling them is one of the most troublesome. Some firms do not wish an order blank returned to the warerooms after it has once been there, because they do not wish the wareroom or factory to know the prices which are placed on order blanks in the office after they have been received there for pricing, extending, and billing. Many firms therefore make an entirely new order to be returned to the factory or wareroom with the letter *A* used in connection with the order number, as follows: *1013A*. This of course delays the filling of the order until the back order is typewritten. If it is necessary to make a second back order, the same would read *1013B*. Other firms use the color scheme. This is a very good idea, as it indicates clearly to the order fillers old orders which should receive attention first.

Many important improvements in the order and billing methods have been inaugurated in recent years in the business of wholesale grocers. Formerly it was the custom, after the order had been numbered and recorded in the order register, to pass the orders out into the warehouse with the general understanding that they were to be filled as quickly as possible. The order fillers would generally start at the top floor and pick all of the items which were to be shipped, place them on a truck and take them to the next lower floor, and follow this plan until the order was entirely filled. In stores above a certain size this resulted in considerable delay.

The first improvement was to send the orders to the shipping department, where they were split up by clerks known as *Slippers*, who wrote on slips the items which were to be taken out of stock, each slip representing the goods to be gotten out on a certain order from a certain floor. This idea allowed the order fillers on all floors to work simultaneously, and resulted in considerable saving of time.

Another favorable result obtained through this system is that the shipping clerk retains an original copy of the order (the copy sent in by the salesman) and is enabled therefore to follow up all departments and hurry up any department which may be delinquent in the filling of a certain order. In planning work, it is always advisable to have one department act as a follow-up on some other department. In the grocery business, it is much more satisfactory for the shipping clerk to have a complete record of all the orders to be shipped that day, than to hand the original orders into the warehouse to be sent down to the shipping department after the order has been entirely filled, and then have the shipping clerk rushed *at the last minute* to plan his loads and do all of the clerical work, such as making up bills of lading, etc.

The next improvement was necessitated by a desire on the part of those wholesale groceries which are located in cities having an efficient interurban electric car service to fill orders at different hours of the day. One western firm transcribed all of its orders on cylinder billing machines, giving the shipping clerk a full copy of the order, and each department a copy of the items which are to be filled from that department only. On the shipping clerk's copy, the notation *11 A. M.*, is marked, also on all of the department order slips. This indicates that the order is to be shipped on the 11 o'clock car. Other stationery is printed with the *1 P. M.*, *2 P. M.*, *3 P. M.*, *4 P. M.*, *5 P. M.* to indicate the hours at which the orders are to be shipped. Many small retail merchants delay ordering until the last minute, and the wholesale house which can give the promptest service gets the business. The above plan advises the shipping department the time that the goods are to be delivered, and makes it responsible for results. All delays are noted, and a daily report made of the causes, which are promptly investigated and removed.

Split Orders. Some wholesale drug houses have their stock arranged on different floors, of which their salesmen are fully advised. If the salesman takes an order for goods which are held in stock on four different floors, he sends in the order on four sheets of paper with the items for each floor written on the respective sheets which indicate the respective floors. Different-colored sheets of paper are used for the various floors. This scheme puts more clerical work on the salesmen, but it enables the office to quickly hand each department its part of the order without the delay of transcribing the department slips on the typewriter at the office. In all order schemes where an order is split up and written on several sheets of paper in order that each department may fill the order without delay, the term *split orders* is used. In all split-order schemes, the number of sheets in which the order has been divided is written on each sheet. For instance, if there are departmental order sheets for three different floors, the figure 3 is marked on each slip. In this way the biller, by counting the number of sheets attached to the complete order, will know that all of the split-order sheets have been returned to the office. Fig. 17 illustrates this system of orders. The three blank sheets at the top are departmental order sheets, and each contains *only a part* of the whole order. This is accomplished by removing one departmental sheet at a time from the billing machine, but allowing the three top sheets to remain in the machine until the entire order is written.

Some firms are willing to make four copies of an order, each copy containing *all* of the items of an order. Other firms do not wish the employes to know what a customer is buying outside of the goods relating to the department in which the employe is working. Further, sometimes two departments in the same factory are equipped to make the same class of goods, and if each department received a complete copy of the order there might be some confusion and duplication in the filling of the order.

Some firms, instead of making split orders, make a summary of the goods to be delivered from each floor, giving each floor several of these summaries in the course of a day. The goods are delivered to the shipping department in large quantities, and are separated by the shipping clerk according to the quantities wanted for each order. Concerns which are using this idea claim that it takes less

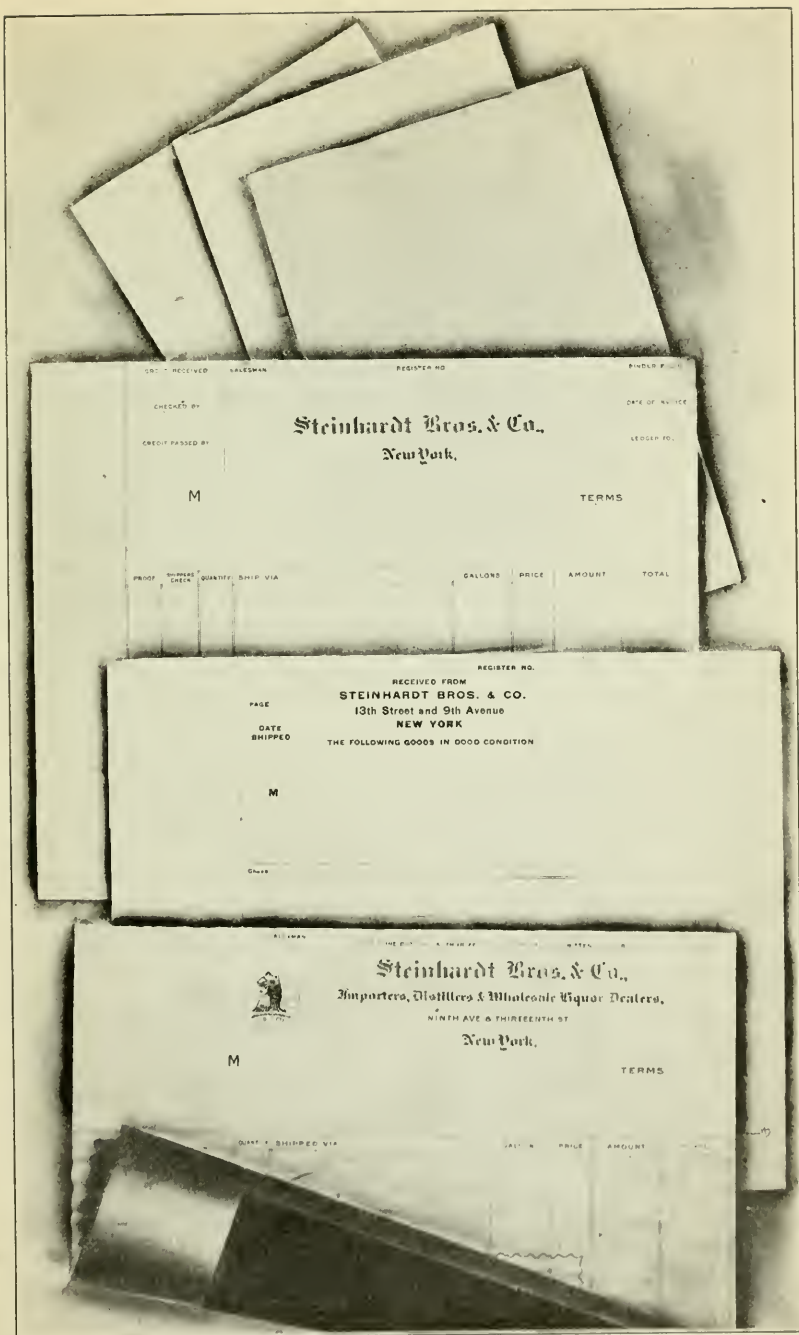


Fig. 17. Forms for Split-Order Schemes

time for the shipper to separate goods than it does for the order department to make split orders for each individual.

In planning the clerical work in order billing and shipping methods, the volume of business being handled must be taken into consideration. A plan which is necessary with a large business would be considered as red tape in a smaller one. The larger a business grows, the more it is possible to "specialize" the work.

In a very small business, one man could fill all the orders and make out all of the bills. In a little larger business it would be necessary to devote one person's entire time to filling orders, another's to making out the bills. In a business twice as large as the one just mentioned, it would be necessary for one person to devote his entire time to filling the orders from one floor only. In an exceptionally large business, it might be necessary for one person to devote his entire time to filling orders for some particular class of goods on one floor. These examples are given to illustrate the meaning of the word *specializing*.

Simple Order Form. The majority of firms transcribe their customers' orders onto their own order forms from letters or requisitions. The simplest form of order is one containing an original for use of the warehouse or factory, a duplicate to be mailed to the customer as an acknowledgment of the order, and a third copy which is held in the office as a record of unfilled orders. The requisition form illustrated in Fig. 18 conveys the idea.

The practice of sending an exact copy of the order to the customer eliminates the necessity of acknowledging the order by letter, and gives the customer an opportunity of checking over the order as entered. It is customary to print on acknowledgment of order forms the sentence: *This is an exact copy of the order as entered—if any errors are noted kindly advise us at once.* One firm in Buffalo saved \$300.00 the first week they installed this scheme, through the detection of an error by the customer.

It is imperative that before a remedy or short-cut methods can be prescribed, it is necessary to thoroughly diagnose all of the conditions incident to the business. It should also be remembered that clerks and even department heads will see all of the imaginary difficulties of a new idea and overlook all of the benefits to be derived therefrom. It should be further remembered that if a new method

[illegible]

Fig. 18. Simple Requisition Forms for Order Handling. *Remington Typewriter Co.*

shortens nine-tenths of any particular class of work and slightly increases one-tenth, the party involved will many times fail to see the net advantages accruing through the introduction of the new idea. If objections are raised to a suggested short-cut method it is always well to ascertain whether the objections apply to a majority of the work or a portion of it only. Most people in clerical positions rather resent new ideas, and seem to take a pleasure in trying to find some reason why a new idea will not succeed. This is one phase of human nature which requires the utmost tact and diplomacy to handle successfully. In advancing or suggesting new methods, it should be assumed as far as possible, that the idea has been suggested by the person to whom one is talking, for the reason that most people are willing to "father" their own ideas.

Simple Order Form with Copy for Shipping Department. The second short cut which was instituted in connection with order forms was the addition of a sheet on which was manifolded a copy of the order for the shipping department.

The idea is to give the shipper information in advance, in order that he may prepare his bills of lading and plan his work for his teams, order cars in advance from the railroad, call up express companies, and such other work as might be necessary to the proper shipment and delivery of the goods manufactured and sold, and to file the copy as his permanent record, in some cases.

Some firms desire to prevent the shipper from knowing the prices at which their goods are sold. This is accomplished by using for the shipping department a short sheet of paper which reaches from the left edge of the order-blank to the price column only. Another method is to use a narrow sheet of carbon paper with a full-size sheet of paper. This plan is not as satisfactory as the former one, as the carbon paper sometimes slips to the right and allows the prices to manifold.

Acknowledgment of Order to Salesman. In some lines of business, it is desirable to add an additional sheet which is termed *acknowledgment of order to salesman*. This plan enables the salesman to know that the order has been received and properly entered for execution (in manufacturing lines it is necessary to transcribe orders on order forms which contain too many copies for a salesman to manifold by pencil), and gives him the opportunity of checking the

order as entered. It should be remembered that in some lines of business there is such an enormous amount of detailed information in connection with an order that neither the customer nor a salesman would check over an exact copy of the order as entered. This should always be taken into consideration when considering the addition of this sheet.

STATIONERY

The various styles of loose-leaf sheets and binders should be fully understood in order to appreciate their importance in order and billing work.

Loose-Leaf Sheets. The first loose-leaf sheets were punched with closed holes, as shown in the illustration of Kilby Mfg. Company forms in Fig. 18. The trouble with the closed-hole punching is that, when placed over the metal posts of the binder, it is impossible to remove a sheet in the center of the binder without removing all of the sheets immediately above the one desired.

To obviate this difficulty, the slotted hole was devised. This is illustrated in the forms of the Commercial Sash & Door Company, in Fig. 19. The slot from the edge of the paper to the punched hole permits the paper to be placed over the posts of the binder between any two sheets. Holes are punched in both the closed and slotted styles in various sizes, ranging generally from a $\frac{1}{4}$ to $\frac{5}{16}$ of an inch in diameter. In late years, manufacturers have introduced punched holes of different shapes from that of a circle.

For permanent records where the sheets are filed serially according to page number, order number, etc., the closed-hole loose-leaf sheet is perfectly satisfactory. For records which are to be removed from any given part of the binder and reinserted in another part, the slotted-hole loose-leaf sheet is the most satisfactory style to use.

Binders. Binders are generally made of two covers and a set of posts, which ordinarily are attached to one of the covers. The other cover is movable in order to accommodate the increased thickness of the binder as loose-leaf sheets are added. Great strides have been made in the manufacture of improved binders. There are so many styles of posts and other ingenious arrangements, where the two covers are held together and closed or opened by the use of a key, that only reference to catalogs of manufacturers will supply detailed information.

In buying binders and loose-leaf sheets, it is well to buy both of the same firm. Heretofore, trouble has been experienced where the punched holes of the loose-leaf sheets were probably $\frac{1}{8}\frac{1}{4}$ inch further apart or closer together than the metal posts in the binder in which they were to be used. The manufacturer of the binders will always claim that the sheets were punched incorrectly by the printer, and *vice versa*.

It is pretty generally understood now that all punched holes should be placed with the center of the hole $\frac{1}{2}$ in. from the edge of the paper. This allows enough margin to permit of the paper being held firmly over the posts. In all cases where the holes are punched too near the edge of the paper, the narrow margin between the edge of the paper and the hole becomes torn very quickly.

Stationery Printed for Typewritten Work. Very few people recognize the great value of properly designed stationery for typewritten work. The law of usage and custom is so strong that invariably invoices and order forms are printed the same as if they were to be hand-written. The headings are printed with the first letter of each word lined up vertically. This plan causes great waste of time on the part of an operator.

All billing and order work should be done on machines equipped either with a column stop or a decimal tabulator. A column stop is a device on a writing machine which automatically stops the carriage at any one of several predetermined points. A decimal tabulator is a device on a writing machine which automatically stops the carriage at the units, tens, hundreds, etc. place in any predetermined column.

It should also be understood that all typewriters and billing machines are equipped with marginal stops. These stops are adjustable, and can be arranged on either side of the machine in such a manner that the carriage will always stop at any given point at either edge of the paper.

It is vitally important that either a column stop or a decimal tabulator should be used in connection with marginal stops on writing machines, and these three points should be taken into consideration when designing stationery for use with a machine. The following illustrations show poorly designed and correct invoice headings.

J. B. WILLIAMS & BRO.
NASSAU, N. Y.

NAME
SHIPPING ADDRESS
P. O. ADDRESS
VIA

SALESMAN
ORDER NUMBER
REQUISITION NUMBER

This blank form has purposely been shown in order to contrast it with an invoice printed in the same way with the headings properly filled in.

J. B. WILLIAMS & BRO.
NASSAU, N. Y.

NAME, <i>Geo. Brown & Co.</i>	SALESMAN, <i>Jenkins</i>
SHIPPING ADDRESS, <i>Flat Rock, W. Va.</i>	ORDER NUMBER <i>2246</i>
P. O. ADDRESS, <i>Wenonah, W. Va.</i>	REQUISITION NUMBER <i>A341</i>
VIA <i>N. & W. R. R. Co.</i>	OUR ORDER NUMBER <i>9422</i>

Contrast this heading with that of an invoice which has the last letters of each line lined up vertically. This makes it possible for the operator of the billing machine to draw the carriage to the extreme right, as the first letter to be written in every line of the heading starts at the same point.

NAME <i>Geo. Brown & Co.</i>	SALESMAN <i>Jenkins</i>
SHIPPING ADDRESS <i>Flat Rock, W. Va.</i>	ORDER NUMBER <i>2246</i>
P. O. ADDRESS <i>Wenonah, W. Va.</i>	REQUISITION NUMBER <i>A341</i>
VIA <i>N. & W. R. R. Co.</i>	OUR ORDER NUMBER <i>9422</i>

The latter form does not have as good appearance before being typewritten as afterwards. However the change is made for the sake of utility and speed. In the first form it is necessary for the operator to position the carriage at a different starting point for each line, whereas in the last illustration it can be readily seen that all the operator has to do is to draw the carriage to the right to the marginal stop, and write without any loss of time.

At one time a speed contest between pen billers and machine billers was held on one of the large railroads of this country, and permission was given the machine people to change the position of the headings of the freight bills. The salesman in charge of the test studied to eliminate certain wasted movements of the typewriter carriage. He succeeded in arranging the printed matter on the bill in a manner which permitted of three starting points in the heading and body of the bill. By pressing his tabulator stop after writing

a name or figure, the machine would immediately jump to the next printing point on the line. This arrangement greatly facilitated the work, and enabled him to prove the superiority of machine over pen work. If he had endeavored to use the old stationery with its irregular headings, he would have made a failure of the test.

Designing Stationery. In designing invoices, order forms, and statistical forms, it should be always borne in mind that the ordinary typewriter or billing machine spaces ten letters to the inch, sometimes twelve spaces to the inch with elite type, and sometimes eight spaces to the inch with large Roman type. Therefore, all vertical lines separating various columns of the form should be ruled in multiples of tenths, twelfths, or eighths of inches, according to the spacing (escapement) of the machine to be used. The different styles of type are shown in Fig. 20.

In estimating the distance between lines, it should be borne in mind that all typewriters and billing machines are arranged for spacing one line, two lines, and three lines. By adjusting the spacing device, the paper can be advanced the width of one, two, or three lines. All headings on the invoice should be arranged so that the next writing point below, on the invoice or order, will be one, two, or three spaces, and the beginning of the body of the bill should be arranged for in the same manner. This prevents any waste of time, and eliminates the necessity of throwing off the ratchet spacing device of the machine and turning the carriage by hand.

The first printing point on an order or billing form should be placed in such a manner that the marginal stop of the typewriter carriage, instead of a tabulator stop, will be available for use. The second writing point on the form should be the first column stop (the column finder on the billing machine is the device which automatically stops the carriage at certain given points). The third writing point on the line should be the second column stop, or decimal tabulator stop, according to the one which is on the machine.

In Fig. 21 is shown an illustration showing the top sheets of an order form designed to facilitate the work of the billing machine. In addition to having all of the printed headings aligned vertically on the last letter of each word, each line is either one space or two spaces of the billing machine platen (rubber roll). This eliminates any waste of time in spacing the order form through the machine.

STYLES OF TYPE

No. 1

PICA. Popular, standard style for correspondence and general work.

Ten characters to the inch.

1,2,3,4,5,6,7,8,9,0.

No. 3

MEDIUM ROMAN. Very legible. Used by public speakers. Either nine or ten to inch, as desired

1,2,3,4,5,6,7,8,9,0.

No. 4

GOTHIC. FAVORITE FOR BILLING.

USED IN COMMERCIAL AND RAIL-
ROAD WORK. TEN TO THE INCH.

1,2,3,4,5,6,7,8,9,0.

No. 6

ELITE. Is used largely for personal correspondence. Much matter in small space without crowded appearance.

1,2,3,4,5,6,7,8,9,0.

The last sheet of the form of the McCaskey Register Co. is cardboard, with the numbers 1 to 31 printed along the top. A movable metal "spud," or tip, is used to show the due dates of each invoice, and to enable the collection clerks to quickly find the desired copies of charges for the purpose of sending out statements from three to five days ahead of due dates.

Styles of Type. The size and style of type is a very important factor in all classes of work where legible manifolding results are wanted. There are several classes of type used in connection with billing machines. Different companies use different names in describing them. The four sizes of type used are as follows:

ELITE

PICA

MEDIUM ROMAN

LARGE (or full) ROMAN

Elite. This style has come into general use in connection with correspondence. It gives a dignified style to a letter. It is the hardest type to keep clean—the most destructive to the rubber roll and typewriter ribbon of any type made. It also manifolds very poorly where a number of copies are used, as the type is so small that the sixth or seventh copy, and many times the third and fourth, are so blurred that it is impossible to tell an *e* from an *a* or an *o*.

This style of type is sometimes used for making up tabulated statements where it is desired to crowd a large number of figures to the inch.

Pica. This is the most generally used type of any. It manifolds quite well up to six and seven copies. It is possible to write only ten figures of this size to the inch.

Medium Roman. This is the next larger size type than the pica and, on account of it being larger, it gives better manifolding results. It also writes ten letters to an inch.

Large Roman. This is the size type which is used by railroad and steamship companies for typewriting their way-bills. It is possible to write only eight letters to an inch.

Gothic Type. The term *Gothic* indicates the style, and not the size of the type. If the small points at the top and bottom of the Roman type were removed (these points are called *serifs*) the effect

would be that of Gothic type. A very pleasing combination on a billing machine is two different sizes of Gothic type, the larger size to be used for capital letters, the smaller size for the small (or lower case) letters. Recent practice has demonstrated the value of using capital Gothic letters of one size, as it increases the legibility of an order or an invoice.

In manifolding, numerals should always be of the "open" kind, that is, 1 2 3 4 5 6 7 8 9 0, and not 1234567890, as the former are much the more legible.

Carbon Paper. There is no article which is so generally misused in the commercial world and which is so little understood as carbon paper. In order that the correct usage may be clearly understood a brief description of its manufacture is given.

The chief ingredients of carbon paper are oil, wax, paper, and color. Oils and waxes are used to give wearing surface, elasticity, and body to the color mixture. Tissue paper—generally of imported quality—with a fine, strong fiber is used. The quality must be first class in order to insure absence of holes and other imperfections in the sheets. Generally the sheets are cut 20×30 inches. A ream is regarded as containing 500 sheets. Three weights of paper are used, 4lb., 7lb., 10lb., respectively, meaning that 500 sheets of the above size of paper will weigh the number of pounds named, according to the thickness of the paper.

Color. The only really indelible color is black; that is because carbon is the basis of the color. The colors which are used are powders which have been ground as fine as possible. They are mixed in proper proportions with oils and waxes. Formerly the mixture was applied by hand, but great strides have been made in machinery for automatically applying the color evenly to the paper. It is important that the color or pigment be applied evenly to the paper and that it penetrates the fiber. Unless the paper retains the pigment, the carbon paper will not wear properly. The longer the color adheres to the paper, the longer it can be used.

Finish. The finish of carbon paper is the factor which is so little understood by the public. Carbon papers are finished with hard, medium, and soft finishes. The hard will scarcely rub off on the hand under pressure, the next will rub some, and the soft finish will smudge if pressed against the hand. Each finish is intended for

a definite use, which will be explained later. The manifolding power of carbon paper depends absolutely on the typewriter itself, the hardness of the rubber roll, the touch of the operator, and the weight of paper, and lastly, the finish of coating on the paper. Two operators on the same typewriter can secure totally different results because one will have light, and the other heavy, touch. The regular rubber rolls which are furnished with typewriters are medium hard—in six months or a year they gradually grow harder, eventually becoming as hard as slate. If a typewriter is to be used for regular work as well as heavy manifolding, it should have two different rolls, one for each kind of work. There is no reason for using a medium hard rubber roll on the machine, getting poor results, and then blaming the carbon paper. Use a hard rubber roll on the machine and there will be no difficulty. Some makes of machines have interchangeable rolls (known as *platens*) which are very useful. It is the work of a minute only, to remove one and place the other on the machine.

Four-Pound Paper. This class of carbon paper has a heavy, sensitive coating, and is intended for heavy manifolding—for making from five to twenty copies. Soft-finish carbon papers are always used where heavy manifolding is to be done. The finish of the paper which is being written upon is also a factor. Papers with a hard finish—that is, a shiny surface—do not allow the color of the carbon paper to take hold, and yet a paper with the soft finish will allow the color to spread, and make a poor copy. This class of paper is also used for making a few copies on very light-stroke machines like the Hammond.

Seven-Pound Paper. This weight of paper is adapted for making from one to five copies. Being heavier than the four-pound, it will wear longer. If coated heavily it will give more impressions than if lightly coated, but the impressions will not be as clear and clean.

Ten-Pound Paper. This weight of paper is intended for use where one or two copies are wanted. Its weight enables it to stand the hard usage to which it is put. On one or two copies, the additional weight or thickness of the carbon paper does not affect the imprint. This class of paper is used with billing machines of all kinds.

Full Carbon Papers. This is a paper which is coated on both sides for making a multiplicity of copies on tissue. The pieces of carbon paper are placed between *every other piece* of tissue paper and manifold on the top of one sheet and the bottom of the next. This carbon paper is used to reduce the bulk of paper in the typewriter—one-half as much carbon paper being required. It is sometimes called *double carbon paper*, and is mostly used by railroads in making up way bills on yellow (dandelion grade) tissue paper.

Copy Carbon Papers. This paper is for use where it is necessary or desirable to make a carbon copy from which to make a letterpress copy. Hektograph carbons are for making carbon copies to be used in a hektograph.

Pencil Carbons. This class of carbon paper is made in the heavy grades of paper from seven-pound to twenty-pound and is made full carbon in the seven-pound weight.

Pen Carbon. This class of carbon paper is made in the seven-pound and ten-pound weights.

Troubles and Remedies. Carbon papers made in summer have different treatment in the matter of color mixture than those made in winter. Users should always remember that carbon paper which has lain unused all year has gradually dried out and depreciated in efficiency. The fresher a carbon paper the better—therefore it is not economy to buy too large a supply if it is liable to stand for more than six months. Never store carbon paper near heat, nor in the direct rays of the sun.

The one great difficulty experienced with carbon paper is the streaked effect called “treeing.” This is caused by the carbon paper being inserted unevenly between the sheets of paper used with it. Once wrinkled, it remains so, and gives the streaked result as long as it lasts. To guard against this trouble, the operator should watch that the carbon paper is not wrinkled when inserting it between the sheets of paper, and should press the release lever on the typewriter to release the paper-feed rolls on the machine, after the paper is inserted in it, so that the unequal tension of the paper and carbon paper may adjust itself.

Durability of Color. Black paper made of carbon pigment is indelible and most durable. Blue or purple papers are next in the order of durability of color, and are made of aniline dyes. Green

next, and red next. The fact is that red and green carbon papers should not be used for permanent records, as they will fade quickly.

Wearing Quality of Paper. Many times a typewriter will have a rubber roll (platen) which has become pitted and worn from age and the use of periods, commas, hyphens, and ditto marks. This is very destructive to carbon paper. New rubber rolls should be placed on the machine. It is not economy to use the cheap variety which can be purchased for 75 cents and which is nothing more than rubber hose drawn over a wooden core. The latter is not cylindrical and will give trouble. The type will print unevenly and cause bad alignment, for which the machine will be blamed.

Blinds. *Blind* is the name given to a sheet of paper used in connection with manifold work for preventing all of the information on the top sheets from being manifolded on certain of the sheets underneath.

For instance, in describing the scheme for providing the packing department with a description of the goods to be shipped, but with the quantity column blank, it will be remembered how a strip of paper of proper size wide enough to cover the quantity column was placed over the left side of the invoice from top to bottom. Therefore all quantities, instead of manifolded onto the packer's sheet, manifolded onto the strip of paper known as the *blind*.

A blind may be of any given shape, and cut away at the top, side, or bottom; or, in some cases, irregular-shaped cuts are made in the middle of the sheet or near the edges. The cuts are made in order to allow certain information to be manifolded on the next sheet under the blind. The balance of the information on the top sheet is manifolded onto the blind, which is thrown away. It is reasoned that it is cheaper to use a sheet of paper for this purpose than it is to stop and make a separate sheet with part of the information only, typewritten thereon.

HOW TO HANDLE ORDERS AND BILLS ON BILLING MACHINES

Loose-Leaf Sheets with Invoices in Blanket Form. In some lines of business it is possible to use invoices of equal size. Some firms therefore have the invoices and sales sheets of equal size. The

top sheet is perforated horizontally at equal distances, which permits the invoices to be torn apart so that one blanket of form invoices may be separated into three or four separate invoices. This plan can be used where the work is done on an ordinary letter-writing machine. In preparing the papers for billing, a sheet of carbon equal in size to the sales sheet is used. A heavy-weight carbon (10-lb.) with hard finish is the best kind of carbon to use for this work. If an extra sales sheet is needed for any purpose, a duplicate sheet of paper, preferably of another color, can be used with another sheet of carbon interleaved between the two sales sheets. This method is wasteful of space as far as the sales sheet is concerned. If each invoice were loose and placed in the machine in such a manner that the first written line on the invoice would be two or three spaces only below the last item of the previous invoice manifolded on the sales sheet, generally *one more* invoice of average size could be manifolded onto the sales sheet.

Loose-Leaf Sales Sheet with Separate Invoices. This combination is made possible by the billing machine, the flat-bed and the cylinder style. Cylinder billing machines are equipped with special carriages having special feed rolls which hold the sales sheet until it is fed entirely through the machine. Cylinder machines also have an independent feed roll which can be released by a special lever. This permits an invoice to be inserted in the machine, and then clamped into position by the intermediate feed roll and fed through the machine with the sales sheet until the invoice is completed. The intermediate feed roll is then released, and the invoice removed without disturbing the sales sheet. The next invoice is then placed in position, and the same operation is repeated. This allows one invoice to be manifolded very nearly under the previous invoice. Some firms having invoices of one or two items only, which permits of from seven to nine invoices being manifolded on each page, have the invoices made up in blanket form; that is, seven or eight invoices to a strip. After each invoice is manifolded they advance the next invoice into position and then tear the invoices apart as previously described.

Carbon Paper Cut for this Class of Work. Some operators doing condensed billing work prefer to use carbon paper the same size as the invoice, and to remove the carbon paper each time an in-

voice is completed. This necessitates a great deal of handling of carbon paper. It is preferable to use a large sheet of carbon paper the same size as the sales sheet, feeding it through the billing machine with the sales sheets. This eliminates the necessity of picking up a piece of carbon paper each time an invoice is placed in the machine. With the former method, if one had four invoices to one page of a sales sheet, it required one to pick up the same piece of carbon paper four times, or once with each invoice. The latter plan necessitates handling the carbon paper once only, when the sales sheet is placed in the machine. The operator positions the second or third invoice on a sales sheet, in order to avoid writing over the previous invoice, by spacing the carriage three times after an invoice is completed.

Using the Sheets Serially. All sales sheets should be serially numbered, in order that when placed in a binder the loss of any sheet may be detected by a missing number. Some firms prefer to use one side of a sales sheet only. In this case, a sales binder holding 375 sheets would have 375 pages. Where the sheets are numbered on both sides, the sales binder would have 750 pages. If the appearance of a page is marred by an invoice being spoiled, that sheet is not thrown away, and the fact that it is not is an incentive for the operator to do good work.

Handling Credit Memoranda. Some firms prefer to handle their credit memoranda on different-colored paper (generally pink) for both invoices and the large sheets which correspond to sales sheets. All of the rules which govern the making of invoices and loose-leaf sales sheets apply to the execution of credit memoranda.

General Remarks Regarding Billing Machines. The flat-bed billing machine enlarged somewhat upon the idea of using special characters for certain abbreviations peculiar to various lines of trade. For instance, in the shoe business, the following abbreviations are some of those used:

WOM	means Women's
CHI	" Child's
BOYS'	" Boys'
BAL	" Balmorals
BLU	" Bluchers
PR	" Pair
PRS	" Pairs
DOZ	" Dozens

The cylinder machines have adopted the same plan. In the cylinder machines there are two distinct classes—those having two type to a type-bar, such as the Remington and the Underwood, and those having one type to a type-bar, with double the number of bars, such as the Smith-Premier. Both classes of machines can use special characters, but the machines having one type only to a bar have a preference in that they have more room in which to place special characters.

There is considerable saving in the use of special characters, as evidenced by the following example:

OCT 14 09.

This necessitates nine strokes where each letter is written separately. Had this been written by three special characters, it would have necessitated five strokes only. The special characters would be used as follows: *OCT.*—space—*14*—space—*09*.

To the uninitiated, it would seem that a special character of three letters, such as the abbreviation *OCT.*, would occupy three spaces on the machine, and consequently would overlap on the word at the right. This is obviated by placing the type on the type-bar in such a manner that the letter *T* of the abbreviation is in the printing point of the paper. The following illustration will show how the type are placed or aligned in order to secure the desired results:

OCT 14 09
| | |

As the month always precedes the next word, the abbreviation *OCT* is aligned so that the two first letters are to the left of the printing point. In case a machine were equipped with numbers for all the days of the month, the character *14* would be aligned to print either side of the printing point. As the abbreviation *09* would always follow and never precede, it would be aligned with the *O* in the printing point, with the *9* printing to the right of it. It is very important to have special characters properly aligned so that the abbreviations which always *precede* are aligned to print on the last letter, and the abbreviations which *follow* are aligned to print on the first letter.

It is impossible to print abbreviations in solid matter such as a letter. They are only to be used in connection with dates of invoices

or orders, in connection with names of firms. For instance, the abbreviation *Messrs.*, at the beginning of a firm name where such a term is desired, or the abbreviation *Co.* at the end of a firm name or the abbreviations *Pr.*, *Doz.*, *Gro.*, and similar abbreviations, come in the body of a bill and, preferably, in the first column after the quantity.

It should be remembered that when the rubber platen of a billing machine becomes worn and cut with holes incident to the use of periods commas, hyphens, etc., the special character type will sometimes print heavy at the top and light at the bottom of the letter, or *vice versa*. This is remedied to some extent by placing a new rubber roll on a cylinder billing machine, or a new rubber covering on a flat-bed billing machine.

Special characters are used to a better advantage on the under-stroke (or blind machine) than on the visible machine. In the latter, the type-bars are all grouped in less than a half circle, which necessarily crowds the type-bars a little closer together, and therefore does not permit of special characters of a large size.

Tabulators on Billing Machines. It is absolutely essential that every billing machine be furnished with either a single-stop (known as a *column-stop*) tabulator or a decimal tabulator, preferably the latter. A single-stop tabulator is used as follows:

On the billing machine frame rests a bar on which metal stops or pegs are placed at predetermined intervals. By pressing the column stop, the carriage holding the paper is released, and jumps automatically to the first stop. After the information is written, the stop is again pressed, and the machine jumps automatically to the next printing point. The following example shows the use of the column stop:

John Jones	Marion, Ind.	XXV
A. B. Smith	Washington, D. C.	XXX
G. Barnes	Seattle, Wash.	XXX

The following example shows the use of the decimal tabulator:

10.50
.50
150.25
15560.65

With the decimal tabulator, the operator would press the tens key, which automatically places the carriage in a position to begin

writing the amount 10.50. If the column stop were used for this purpose, it would have stopped the machine at the period point, and necessitated the operator pushing the carriage two points to the right in order to begin printing two points to the left of the decimal points. Some operators place the column stop so that the machine always stops at the tens point, and if an amount of 1.00 or less is to be written, they use the space key. This is quicker than to always stop at the decimal point and then position the carriage properly by hand. However, where any tabulated work involving figures which vary greatly is to be done, it is decided economy to use a decimal tabulator. Most operators do not see the advantage of using tabulators, and in many instances will continue to waste time spacing the machine with the space bar. If they would avail themselves of the tabulator device they would jump from one part of the line to the next desired point instantaneously. It should be remembered that billing work is a constant repetition of certain manual movements. If one movement in ten can be eliminated, it is equivalent to saving one hour in ten. To show the great advantage of, and it might be said, necessity for, time saving and short cuts in large establishments, a device used by Butler Bros., a large mail-order house with warehouses in several of the large cities, is an excellent illustration. This particular scheme is used in Jersey City, N. J. It consists of two rows of billing machine operators (sixty-five in number) placed in parallel positions with an endless belt running between them, and two checking clerks at the end of the row. As fast as the operators transcribe the orders onto the order forms, the original and typewritten order (with departmental copies) are placed on the belt and carried automatically to the checker's desk.

The rubber belt passes over a pulley at the edge of the checker's desk, which allows the orders to fall from the belt to the desk. The belt returns to the end of the line, where it revolves around another pulley. The power is furnished by a small electric motor.

Arrangement of Billing Machines in Large Business Houses. In large businesses in the wholesale dry goods, wholesale notions, and kindred lines, special arrangement enables a few billing machines to accomplish a large amount of billing. In these classes of business, it is the custom to call the lot number, class of goods, and the number of yards to the bill-clerk, who in turn enters it on the bill and dupli-

cate. The system used will be described elsewhere. Here it is desired to touch upon the movable-platform idea only. The operator is seated on an elevated platform on which is placed the billing machine and the chair. This platform has rollers, and can be moved in the aisle between two rows of counters on which the goods to be shipped are placed. As soon as the callers call off the lot numbers, description, and quantities of one shipment, the billing machine operator moves the platform to the next lot of goods, which enables him to hear the caller clearly wherever the caller may be. If the bill clerk were permanently located in one portion of the room, he would be liable to make errors through misunderstanding the caller. A scheme which is largely used in those classes of business which demand the "call off system" or, as they term it, "billing from call" is to call off the word *sixty-five* as if it were *sixty-five*, and the word *fifty-five* as if it were *fifty-five*. This prevents confusion between these amounts which sound so much alike. Some firms for *sixty-five* use the term *sticky-five*.

Use of Computing Machines in Connection with Billing. Many firms use computing machines such as the comptometer for proving the extensions on invoices. With a machine of this character, it is possible to figure all of the extensions. The machine at the same time automatically adds the totals, and, if there are discounts to be taken off the bill, this operation can be performed without clearing the machine. For instance, in the following example:

12 yards lace	50	\$ 6.00
15 yards ruching	10	1.50
24 doz. hdchfs.	12.00	288.00
		<u>\$295.50</u>
	25%	221.63

By *clearing* the machine, is meant pulling the handle which returns all of the wheels to 0 for the beginning of a new computation. Without desiring to enter into the mechanical merits of adding machines, either listing or non-listing machines, it is important to touch upon the various arguments used in favor of billing machines with adding attachments and without them.

The flat-bed machines were the first to use the combined machines. The plan in use was to place two recording registers on the billing machine and prove the total of each bill separately with one register, and accumulate the totals of all the bills for the day on the other

register. Certain firms used extra recording registers for recording the totals of extra columns on the sales sheets in which they analyzed the sales according to classes of goods or some other classification. Some firms did not add the bills when making the extensions of the prices and quantities, but left the additions for the adding machine. The only draw-back to this plan was that if the operator copied a wrong total from the register dial it caused trouble. This fault, if fault it may be called, as it is not the fault of the machine, but of the operator, has been corrected by placing a subtracting device on the late models of combined billing and adding machines, whereby the subtracting device is thrown into action when the total of the bill is being written. If the correct amount of the bill is written on the invoice, the dial figures all turn to ciphers, which indicates that the amount has been correctly transcribed by the operator. Other improvements will likely follow in the many machines which are being placed upon the market. See Fig. 29 on Page 67.

Some firms prefer to do all the billing as one operation, and use a separate or computing machine, as the case may be, for proving the additions at the end of the day. The reason is that by having two separate machines they can be used by different people during the day for different work.

If computing machines are needed for adding, multiplying, and taking off discounts, the non-listing machines are recommended, as they are key-driven. If adding machines are needed when printed lists are wanted of all additions, then listing machines are recommended. The general public has recognized that each class of machine has its separate use. Some firms check the totals of listing machines with non-listing machines, in order to save time and paper. Non-listing machines are used for taking a record of rolls and yards of cloth during inventory time, and later are used to multiply the extensions. Some dry goods firms hire expert operators at a dollar an hour to do this class of work, as it can be done in one-fifth the time that it would otherwise take. For instance, an example in multiplication, such as 432×235 , would take approximately ten seconds to write down, multiply, and set down the figures. With a multiplying machine mentioned above, it can be done in two seconds.

With listing adding machines, equally valuable results can be obtained. In certain classes of work, such as collection letters in

banks where there are rows of figures representing the various checks, and typewritten information, such as description of endorsements, it is much faster to place the sheets in the adding machine and list the amounts thereon and automatically print the total with the adding machine. This avoids the trouble due to operators printing wrong totals on the billing machine. The typewritten information is then put in on the typewriter or billing machine. There is this to be said, however, if an operator prints a wrong amount on a listing adding machine, the answer will be incorrect, but the machine will print a correct total of the figures printed by the machine. A listing machine can be equipped with a wide carriage and used for printing lists of figures just the same as a typewriter. Time should never be wasted printing a statement covering rows of tabulated figures on any typewriter, and then taking the statement to an adding machine and adding the columns to prove them, if it can possibly be arranged to make up the entire statement on the listing machine. Listing machines are now prepared to manifold at least two extra copies, and are equipped with column tabulators.

For adding a number of columns, with or without a grand total column at either the right or left side of the book or sheet, and where the items are written one at a time in *different columns*, the combined typewriter and adding machine is recommended. One such is shown in Fig. 22.

COLORED SHEETS

The "colored sheet system" indicated below makes it unnecessary to refer to the written matter for distribution. A glance indicates the department or service for which every slip is intended. The distribution may be as follows:

- The office record (register) may be filed numerically;
- The order book copies alphabetically;
- The requisitions by departments;
- The shipping instructions, chronologically;
- The salesman's records, territorially;
- The cost sheets, according to classification.

One copy may also be filed geographically for comparison of results. This furnishes a complete record and makes reference easy.*

*As a general rule, the "order acknowledgment" has been handled separately, although it is possible to include it in the one writing.

This summary illustrates the use of the color scheme, and gives a brief hint of the plan usually followed in filing order sheets for various departments. It should be remembered that the best billing and order plan in the world can be made the most abject failure, if proper attention is not given to the proper filing of sheets.

For example, if clerks in looking for a certain order could always give the order number, but not the name of the customer, it would

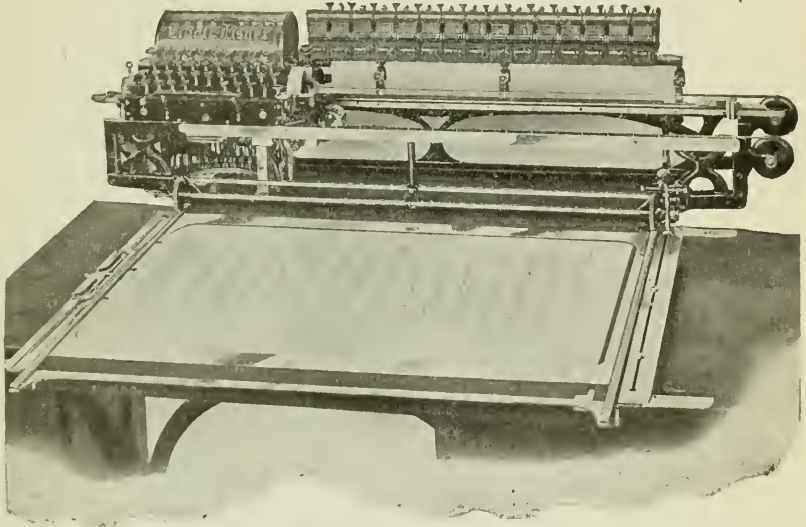


Fig. 22. Combined Typewriter and Adding Machine. *Elliott-Fisher Co.*

be wrong to file the orders alphabetically; in such cases, file the orders numerically. Always file papers according to the information which the clerk or executive will have at hand when looking up the same. Sometimes, papers will be just as easily found when filed numerically as alphabetically.

Reference Information. One very important feature to remember in designing forms is to place all reference information on the right-hand side of the sheet. In leafing loose sheets held in binders, it will be easy to find the desired sheet if this plan is followed; but, if the reference numbers are placed on the left side of the sheet, it will be necessary to open the binder relatively wide to see each number.

In the illustration, Fig. 23, it will be noted that the order number is properly placed, and that the printed headings are aligned

horizontally at the back, which permits all typewritten matter to be started evenly. The value of this point was touched upon in a previous chapter, as to saving of time in the execution of the work. In this particular form, however, there is typewritten matter to the left of the headings, such as *account of*, *ship to*, etc. The marginal stop on the billing machine should be set for the first typewritten matter, and tabulator stops used for all matter to the right on each line.

COMPOUND FORMS

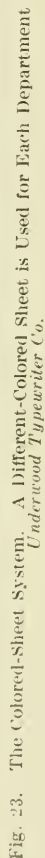
One of the most effective means of short-cutting work, where the nature of the business will permit, is through the use of compound forms. These forms derived their name from the combination of order and billing work on one set of sheets and accomplish in one operation, sometimes in two, all the clerical work incident to the receipt, registering, acknowledgment, billing, charging, and shipping of an order.

It can be readily seen that if a firm can fill its orders completely, or almost so, that there is no use to wait until the order is filled before billing it. It is a great deal easier to place another sheet along with the order forms and use it for an invoice. It is generally placed as the top sheet of the set, and therefore it is the original.

Goods Shipped for Entire Order. If the nature of the business is such that the firm can always fill its orders completely, it is perfectly safe to enter prices, make the extensions, and complete the invoice, with the possible exception of the date when the goods are finally shipped, if they cannot be sent out the same day. In such cases, a printed heading is provided on the invoice, opposite which the shipping date is typewritten. This then becomes the date of invoice.

Goods Almost Completely Shipped. If it is possible that one, two, or three items cannot be shipped at all, or in part only, it is the custom to hold the invoice (and copy, or copies, when there are any) in the office, arranged alphabetically according to customers, pending receipt of information from the shipping department as to quantities, weights, etc., of goods shipped. This invoice is an exact typewritten duplicate of the balance of the order forms, and has the heading for quantities to be shipped and, usually, prices for each article. Neither the extensions of the items nor the footing of the bill have been made.

footings made to correspond with the items which have been shipped. The question arises in regard to the items which have not been shipped. Some firms print on the bottom of each invoice the sentence: *All items which are not priced nor extended have been "back-ordered" and will be shipped later.* Other firms typewrite an *X* in the price column,



or number the items which have not been shipped. They then make a written explanation on the bottom of the invoice regarding the date at which the balance of the goods will be shipped. In some lines of business this plan tells the customer not only what he ordered, but what has been shipped and when the balance will be shipped. The memo on the bottom of the invoice also saves the writing of letters to customers.

In other lines of business, this plan would be absolutely unfit—for the reason that certain firms do not wish to call the customer's attention to the items which have been omitted.

Compound forms generally have two columns at the left—one for the goods ordered, the other for the goods shipped. If this were not provided, it would be necessary to erase quantities in all instances where a different quantity were shipped from the quantity ordered.

Fig. 24 is a good illustration of forms for a line of business which always has the goods in stock. The various brands of goods are printed in the body of the invoice. All that is necessary is to write the quantities, prices, extensions, and footings. Four copies are manifolded—invoice, warehouse order, house record, and collection record.

RETAIL DRY GOODS BILLING

The retail dry goods houses and department stores use a form of billing which is different from any other, in that the bills are rendered to the customer once a month only. There are other lines of business which render their bills monthly, and which use the same style of billing.

A folded form is used, the top sheet when completed at the end of the month is mailed to the customer. The second or duplicate is retained for the record of purchases.

When a customer makes a purchase, the saleslady makes the charge in her sales book. One copy goes with the goods to the wrapping desk, the other goes to the cashier's desk. The wrapper cannot handle a package without a duplicate sales slip. The packer removes from his duplicate slip a stub bearing the same number as the slip. This is to prevent goods being removed from the house without proper authority. The cashier retains the slip if cash has been paid, but passes the slip on to the auditing department, if the slip is marked by the saleslady *charge*.

SHIPPING CLEARANCE MACHINE Co.
SUPERINTENDENT. Machine Co.
TIME, H. E. P. R. Machine Co.
ACKNOWLEDGMENT. Machine Co.
OFFICE. Machine Co.

INVOICE.
Household Sewing Machine Co.
MACHINE, CABINET AND FOUNDRY WORK.
Presidence R. L. Oct. 21, 1904.
SOLD TO John Smith & Son.

OUR NO. 2175
YOUR NO. 6711
TERMS Net.

3	Parts # 276	Adjustment lever	@ .12	36	
12	Parts # 16	Base Plate.	@ 2.00	24	00
				24	36

COLLECTION RECORD

BUCKEYE SOAP CO. ★

HOUSE RECORD Folio No. 77 C
Order No.

BUCKEYE SOAP CO. ★

WAREHOUSE ORDER Folio No. 677 C
Order No.

BUCKEYE SOAP CO.

Folio No. 677 C
Order No.
Warehouse No. 675
DAYTON, OHIO. 1910.4

MADE IN U.S.A.

Shipped from our BUFFALO
Stock, via

Sold to The Excelsior Laundry,
Address Dayton, Ohio.

Terms 1/10, net 30 days.

10	5000	"BUCKEYE BOPAX" (Chips & Soap, 250 lbs. ea.)	5 1/2	131 75
6	1120	"POPULAR NEUTRAL" " " " "	6	7 00
		"BUCKEYE OLIVE" " " " "		
		"BUCKEYE CASTLE" (Solid) " " " "		
		"BUCKEYE PALM" " " " "		
		"BUCKEYE OLIVE" (Bar) " " " "		

Low freight from warehouse (1)

cash discount

\$138 75

PERMITS ALL TO CAME
If the quantity of stock is found
to be less than the amount ordered,
the balance of the order will be
filled. The quantity of stock
ordered will be filled. The quantity
of stock ordered will be filled.
The quantity of stock ordered will
be filled. The quantity of stock
ordered will be filled. The quantity
of stock ordered will be filled.

REMIT TO DAYTON OFFICE

Fig. 24. Compound Forms, Showing Invoice and Office Records
Remington Typewriter Co.

In large stores like John Wanamaker's, the customers are given by the credit man a brass check with their number marked thereon. This shows each clerk with whom they deal that they are entitled to credit, without having them identified each time they make a purchase. In smaller cities, the clerks become familiar with all the charge customers, and any plan of this character is not needed.

The sales slips are all numbered from 1 to 50, and the auditing department checks back each day all the slips of the different salespeople to see if all the slips have been accounted for. Some stores have a chart on the cashier's desk *with the clerk's number at the top of each column*, and the check numbers listed serially in each column, as shown in Table I.

TABLE I
CHART FOR CHECKING RETAIL SALES SLIPS

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
10	10	10	10	10	10	10	10	10	10	10	10	10	10	10

As fast as the checks are received at the cashier's desk they are checked. If one of the clerks should sell goods to a friend, and send one slip to the packer, but destroy the cashier's copy, the fraud would be detected, as the next slip which would be sent in would show by the number that the previous one was missing. The matter could be investigated immediately. The auditing departments of different stores handle the detail of the work in various ways—which, however, are about the same. Some stores, after they prove that there are no slips missing by checking the slips by the serial numbers, add them up on adding machines. As some stores do not care for a list of the slips, they use a non-listing machine, such as the comptometer. Other stores add the sales of each clerk separately, and add the totals of all the clerks to secure the total sales. The

total sales of each clerk are then entered on a statistical sheet which shows a comparison of the total daily sales of each clerk for the month, as shown in Table II.

The slips are then sorted according to departments, then added again, and similar information written on statistical sheets with the department numbers at the top, instead of the clerk numbers. The grand totals must agree to prove the work.

The slips are then sorted according to customers. If Mrs. J. B. Jackson has bought goods in three different departments, the auditing department will pin the three slips together and mark the total of the slips to be charged to her account on the back of the under slip. If there are twelve bill clerks and twelve billing ma-

TABLE II
COMPARISON OF DAILY SALES OF CLERKS

	Clerk No.	1	2	3	4	5	6	7	8
Total	Days								
335 38	1	30 50	55 45	47 70	35 35	56 78	34 25	40 56	34 79
492 53	2	56 74	87 55	9 76	87 23	54 09	19 89	86 75	90 52
etc.	etc.	etc.	etc.	etc.	etc.	etc.	etc.	etc.	etc.

chines, all the slips will then be assorted into twelve lots, each lot representing the number of accounts taken care of by each bill clerk.

Each bill clerk receives the slips in alphabetical order. The monthly folded bills are arranged in the same order. These are held in binders—a special kind, such as the Tengwall, being used—from which the bills can be easily and quickly removed. Some firms prefer to file daily in vertical files the current monthly bills, upon which the charges are being made.

Some machines, such as the Smith Premier and the Elliott-Fisher, have a carbon roll on their machines for manifolding these duplicate folded bills without handling the carbon paper. These attachments were especially designed for this particular work.

After the operator has entered the charges of the three slips for Mrs. J. B. Jackson, or any other customer having more than one

slip for the previous day's purchases, she compares the total she has placed on the bill with the total marked on the back of the slips by the auditing department.

Fig. 25 shows samples of folded monthly retail bills. The black showing under the top sheet, which is turned over, is the carbon paper used with the bills when made on machines not equipped with the carbon-roll attachment. Some firms place the carbon paper between the sheets at the beginning of the month, and leave it there; others place the carbon paper between the sheets for every charge which is made to the bill.

After all the charges have been made, the operator adds up on the adding machine the totals of all the last charges on the various bills to which charges have been made that day. This total must agree with the amount which the auditing department handed over to each bill clerk to be entered upon these bills. The Smith Premier and Elliott-Fisher have tally-strip devices which automatically record the total of each charge made to all the various bills each day. This paper strip, when added up, must agree with the total of the auditing department figures.

At the end of the month, about the 26th, most firms begin to total the columns of the bill. The final total of each bill added to the total of every other bill must give a grand total equal to all the charges for the month. This proves that each bill has been correctly added. The balance due from the previous bills is then brought forward, and any payments made during the month deducted, and the bill footed. All credits for returned goods are entered during the month the same as the charges, excepting that they are placed in a separate column provided for that purpose, and deducted at the end of the month from the charges.

Some firms post the total charges and credits for the month to the ledger in two lump sums. Other firms prefer to post the total of each day's charges to the ledger daily, instead of letting the posting go until the end of the month. This is a matter to be decided from a bookkeeping standpoint. If the bookkeepers have the current month's charges in the ledger, it saves referring to the bills at the bill clerk's desk for information or the current month's charges.

After the bills have been sent out, the duplicates are filed away. The best known way to file them is alphabetically; each customer's

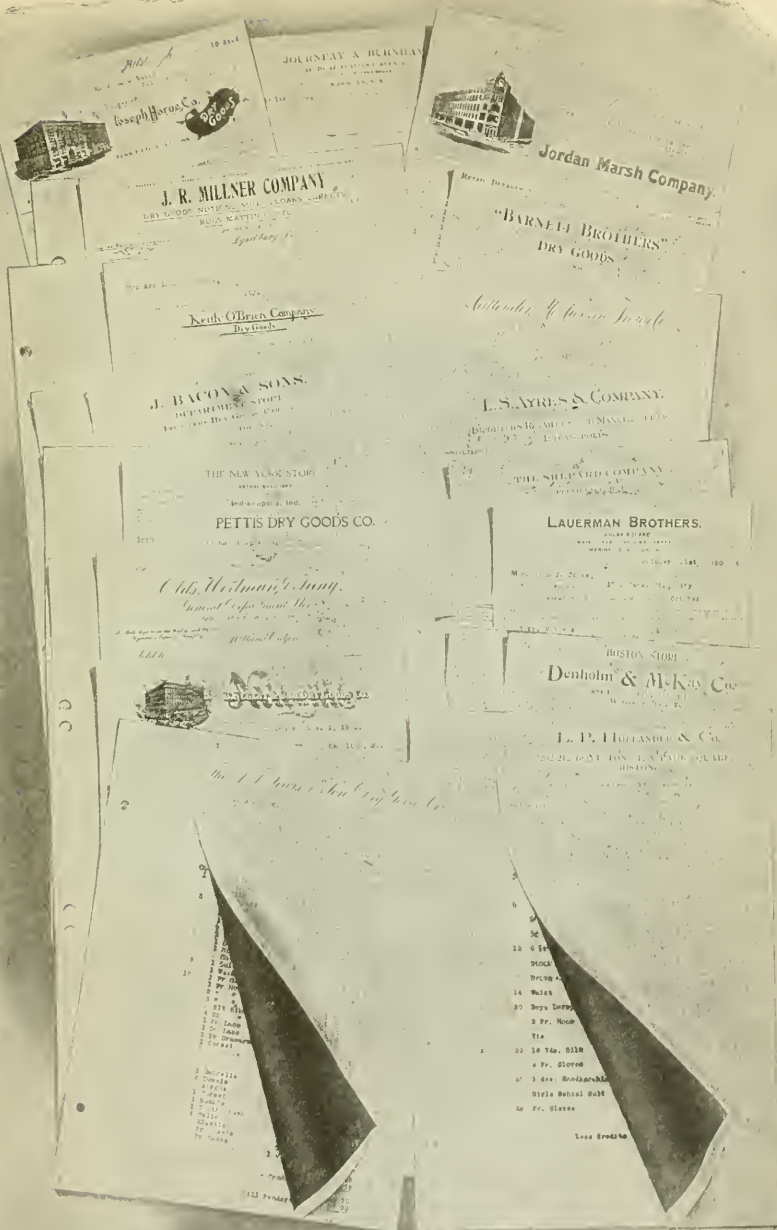
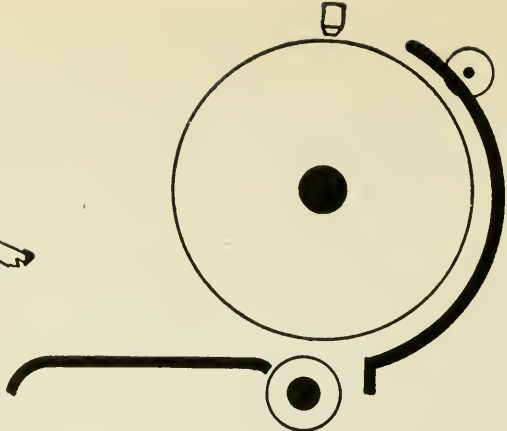
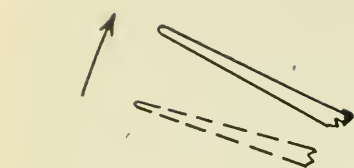
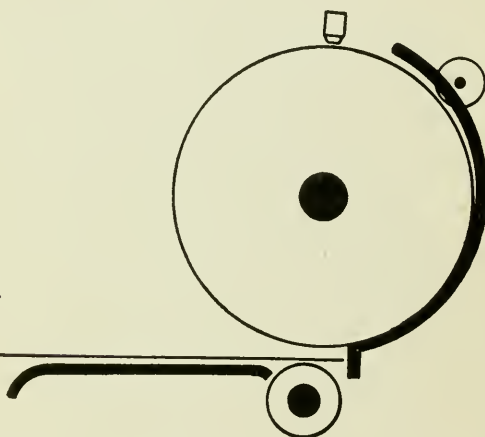


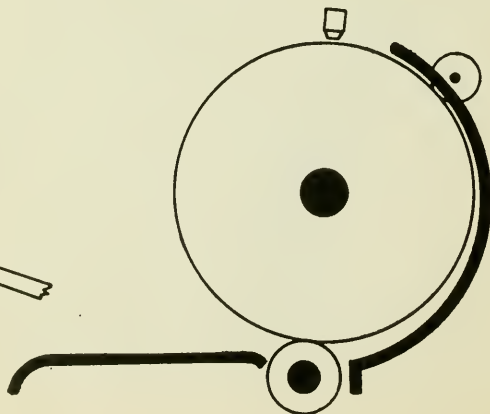
Fig. 25. Monthly Statements of Retail Dry Goods Houses
Remington Typewriter Co.



Lever pulled forward—releasing feed roll and shelf to release form



Lever thrown back—shelf in—
for insertion of form



Normal Position

Fig. 26. Smith Premier Device for Inserting Dry Goods Billing Forms Evenly

bill for the various months together. This is in contrast to the plan of filing each month's bills away separately. If it is wished to refer to any one person's charges for a given number of months it is necessary, under the latter plan, to refer to several binders.

One of the devices which did more to permit cylinder machines to do billing successfully is shown in Fig. 26. Formerly, when two



Fig. 27. Remington Billing Machines

or more sheets of paper were inserted in a cylinder machine, the small feed roll which rests against the large rubber platen, fed the under papers at a different speed than those sheets which rested against the large roll. The result was that the papers were fed unevenly into the machine. When removed, it was impossible to replace them in the same relation in which they were before.

The device illustrated furnishes a resting place for evenly placing all the sheets in the machine by pressing a release lever which draws the feed rolls away from the large roll until the papers or sheets are

properly placed in the machine. Started evenly, they will invariably feed evenly.

This is of particular advantage in retail dry goods billing, where a sheet is placed in and out of a machine as many as thirty times a month. If the top of the bill is each time started from the same starting point, namely, the top of the statement, it will feed correctly to the next writing point on the statement without any adjust-

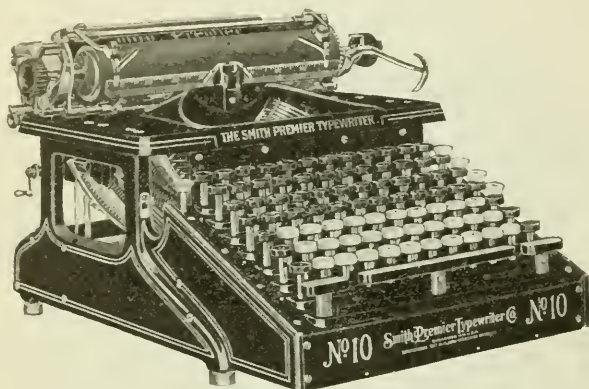


Fig. 28. Smith Premier Dry Goods Billing Machine

ment. The Remington, Fig. 27, and Underwood machines are equipped with devices for the same purpose. The Smith Premier, Fig. 28, and the Elliott-Fisher machines are equipped with rolls of carbon which automatically manifold folded monthly bill forms.

DEVICES OF THE FUTURE

One of the successful devices which is being perfected at this time is a combination of an adding machine and a cylinder billing machine which can be operated as a combined machine or separately as two machines, and may be actually removed, one from another. The idea is to have a platen or roll which can act as shuttle between the typewriter and the adding machine. By pressing a button, the roll travels from the typewriter to the adding machine. This scheme has the same advantage as has the farmer who can operate his horses singly or in pairs.

The adding machine people have been experimenting and gradually increasing the printing capacity of their machines. They are now able to print the different months of the year and some other

abbreviations for monthly statement work. Further developments can be expected along this line. Adding machines which list are a very important factor in office work and their capacity is so large for



Fig. 29. Adding and Subtracting Machine Combined with Cylinder Billing Machine
Remington Typewriter Co.

certain classes of work that space does not permit of detailed treatment here.

While marvelous improvements have been made in the last decade, the next one promises equally well, especially in the adding-machine line.

THE SHIPPING DEPARTMENT

INTRODUCTION

The average manager of a business has but a rudimentary knowledge of traffic affairs as they relate to the shipment of his goods. He does not know that he is receiving the lowest rates to which he is entitled, or that the most favorable classification is applied to his shipments.

A large percentage—probably a majority—of the concerns which do any considerable amount of shipping, or receive a large quantity of freight, lose annually in overcharges, due to improper classifications, defective packing, and a general lack of knowledge of the subject, a much larger sum than would be required to pay the salary of a competent traffic manager. There are so many intricate details to be considered in the shipping problem, that the subject requires special study, and shippers whose volume of business is even moderate find it profitable to employ a traffic manager.

Not every shipper is doing a business of sufficient volume to warrant the employment of a man to devote his entire time to this question, but, in the organization of every business doing even a small amount of shipping, there should be one man who will make a study of traffic matters. He need not have an intimate knowledge of the entire subject of traffic affairs, but he should be posted on all questions that have a bearing on the shipment of the goods of his house. When no regular traffic manager is employed, the duties of the position fall on the shipping clerk; he is the logical man to make a study of the subject.

Considered from the standpoint of his knowledge of shipping requirements, classifications, manner of packing, and the application of special rates, a man who has had experience in the freight department of a railroad makes the most successful traffic manager. Such a man may not be fitted to organize and handle the work of

the shipping department but, in a concern large enough to require the services of a traffic manager, there will be work enough to warrant the employment of an assistant to look after this branch of the work.

THE SHIPPING CLERK

In this discussion of the organization of the shipping department, the shipping clerk will be considered as assuming the duties of traffic manager, as well as those that usually pertain to his position. He will be at the head and have full charge of the department, keeping such records as may be called for by the business.

It is the duty of the shipping clerk to see that all goods are shipped promptly, packed and described to secure the most favorable rates, and properly routed. He must have a checking system that will enable him to locate errors and to know that all goods called for by an order have been shipped. He will be assisted by such packers, checkers, and porters as may be required to handle the work.

The packers will receive the goods called for by an order from the stock men, and will pack them properly. They will check all goods packed against the order. In this, they will be assisted by checkers, who check the goods received on the shipping floor and again when they are packed. Discrepancies must be reported at once and adjusted immediately.

In some concerns, the shipping clerk is also the stock clerk, in which case he has charge of the actual filling of the orders. He is assisted by stock men, who select the goods and assemble the orders under his direction.

Like the head of any other department, the shipping clerk should have full control of his department. No other person in the organization should be permitted to make shipments. Concerns have been found in which it was the custom for different employes to ship small articles without the knowledge of the shipping clerk. Invariably, this leads to mistakes and results in blame being wrongfully placed on the shoulders of the shipping clerk. And even greater damage is done in the disruption of the organization.

Information Required. The shipping clerk should be fully informed on all traffic questions that affect the shipment of the

goods of his house. Of first importance is a knowledge of classifications, that he may know that his shipments are placed in the lowest classification to which they are entitled. Copies of the classifications can be obtained from any local freight office.

In this country there are three principal classifications, these being the *official*, governing the eastern territory; *western*, governing western territory; *southern*, governing southern territory. There are also a few special classifications governing classifications in certain states. While some attempt at uniform classification has been made, the several classifications show many variations, the same article taking different classifications in different territories.

When classifications are received, they must be carefully studied by the shipping clerk that he may really understand to what classifications his goods are entitled. It might be supposed that a certain article or class of goods would always take the same classification but this is not the case; other questions than the name have a bearing on the question.

The manner of packing goods very often determines the classification. Certain articles are placed in a lower classification if boxed than they would be if crated. This is specially true of goods that are liable to damage in transit. Many shippers make a practice of crating goods because it can be done more cheaply than boxing, without realizing that the difference in packing cost is more than offset by the increase in the freight rate.

The classification is also sometimes determined by the manner in which the goods are described. It is necessary, therefore, to study the classifications with reference to the description that will insure the most favorable rate. However, false descriptions made for the purpose of securing a lower classification must be avoided, as the Interstate Commerce Act provides a heavy penalty for such falsification. But there may be several different descriptions which legitimately apply to a given article, each placing it in a different class. A case in point: The western classification made no provision for filing cabinets in carload lots, with the result that a carload shipment, described as filing cabinets, took the rate provided for less than carload lots. But the same classification gave a lower classification, consequently a lower rate, on office furniture in carload lots.

Filing cabinets being office furniture, it was entirely legitimate to describe such shipments as office furniture.

Another illustration of the effect of description on the classification is found in shipments of carriages. The classification, and consequent rate, on this commodity is based on the space that it will require, rather than on the rate. If shipped knocked down and properly crated, with the dimensions stated on the shipping bill, a carriage takes a lower classification than if shipped assembled, or if the dimensions of the crate are omitted.

These illustrations are sufficient to show the importance of a thorough knowledge of the provisions of the different classifications. The shipping clerk who would give the best service to his house should make a study of this subject, even if he is obliged to take the classifications home and study them at night. Every shipper should see that his shipping clerk is supplied with copies of classifications governing the territory in which he is doing business, and give him an opportunity to learn their provisions in respect to the commodities which he ships.

Class Rates. A *class rate*, as the name implies, is one based on the classification. All commodities are divided into classes, six in number, and all commodities of the same class—with certain exceptions, explained later—take the same rate. Schedules of rates between given points, based on the class, are prepared by the classification committees, but before being put into effect, they must, in case they apply between points in different states, be submitted to the Interstate Commerce Commission for approval. While not a *rate-making* body, the commission is a *rate-governing* body, constituting, in a certain sense, a board of arbitration between shippers and transportation companies.

The rates being based on the classes—the higher the class, the higher the rate. To determine the rate, it is first necessary to find the classification; reference to the rate schedule will show the rate for each class.

Commodity Rates. A commodity rate is one applying to a special commodity, between definitely stated points. Commodity rates are established by the railroads to meet some special condition and with these the classification committees have nothing to do.

A commodity rate does not apply to articles not named in the

tariff even though they are of a similar nature, nor do they apply between points not specified in the special tariff. A commodity rate is, in effect, a special rate; it offers special inducements for the shipment of certain commodities, but is not intended to favor any one shipper. The commodity rate is for the benefit of all shippers of the commodity named.

The volume of traffic is the chief factor in establishing rates, either regular or special. It is an especially important factor in establishing a commodity rate. In a given community, some one commodity may be produced in large quantities. Perhaps it is a raw material which must be transported to certain manufacturing centers. To encourage the development of the industry, thereby creating a large volume of traffic, the railroads leading from the point where the traffic originates establish a commodity rate to other points, where the raw material can be used to advantage by the manufacturer. Or, perhaps, important manufacturers are located on other roads, in which case connecting lines join with the originating road and issue what is known as a *joint tariff*. This enables the producer to deliver his raw material to the manufacturer on favorable terms, when to pay class rates might compel him to abandon the enterprise, with a consequent loss of traffic to the railroads. This discriminates against no one, since every shipper of the particular commodity between the points named is entitled to the special commodity rate.

Frequently, however, a commodity rate exists between certain points which might, under certain conditions, be taken advantage of by a shipper located at a point outside of those named in the commodity tariff. For illustration, a manufacturer in Peoria, Illinois, is shipping a commodity on which a special rate is granted between Chicago and Milwaukee, but takes a class rate from the point of shipment. He makes a shipment to Milwaukee and pays the through class rate provided from the point of shipment, when by proper billing he would have paid the class rate to Chicago, and secured the benefit of the commodity rate from that point to Milwaukee. A lack of knowledge of commodity rates in effect in the manufacturer's territory has resulted in an unnecessary expense—a loss of money.

The claim might be made that the billing clerk at the local freight office should have given the shipper the benefit of the lowest

rate. But he will fall back on the classification and be prepared to show that he has given the only rate quoted on shipments from Peoria to Milwaukee, which is the class rate. It is no part of his duties to keep posted on commodity rates granted by another road, while it is distinctly to the interest of the manufacturer to know of the existence of all such rates applying to his product.

Freight Tariffs. The Interstate Commerce Act provides that two copies of every freight tariff issued by the railroads shall be placed on file at each freight office, for the inspection of the public. Since the rates must be made public, the railroads do not object to supplying shippers with copies of the tariffs applying to their product. Through the local freight agent, copies of all tariffs applying from the point of shipment can be obtained.

It has been shown that, in the case of commodity rates, copies of tariffs from the point of shipment are not always sufficient. It is necessary to obtain, from connecting lines reaching the territory in which the trade of the house lies, copies of all special tariffs applying to the commodities shipped. The freight departments of all railroads, through their solicitors, make a practice of supplying copies of all regular and special tariffs to all large shippers on their lines, and to shippers on connecting lines who are in a position to divert traffic to them. Any shipper who has been overlooked, should write to the freight departments of all lines in his territory asking to be placed on the mailing list to receive copies of all tariffs affecting his product. By doing this, he will secure copies of all such tariffs as soon as issued.

The subject of commodity rates is one of the most vexing with which the shipping clerk has to deal, as it is also one of the most important. To compile a complete file of special tariffs, involves close study and much labor. But when once done, it can be kept up-to-date with little difficulty; and the saving resulting will far outweigh the cost.

Filing Tariffs. The manner in which freight tariffs coming into the office are filed is important, for unless properly filed and indexed they are likely to be of little value. The filing system must provide for quickly locating any tariff, and for locating all tariffs that may have a bearing on a particular case.

In the average shipping clerk's office, it is not uncommon to

find the tariffs dumped into a drawer, without regard to their order, or hung on a hook on the wall. When a rate is wanted, it is necessary to search through the tariffs until one giving the rate is found. The chances are that the first rate found will be used, regardless of the fact that another tariff shows a special and lower rate.

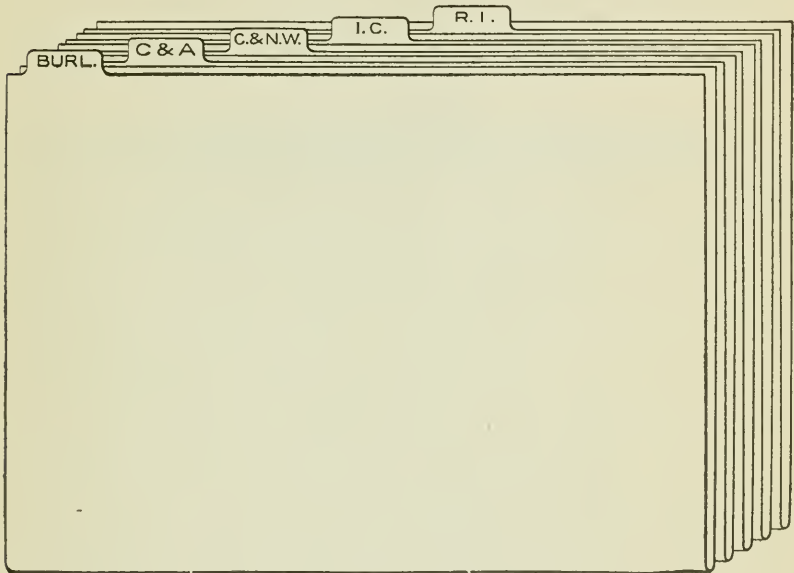


Fig. 1. Vertical File of Indexed Folders for Railroad Tariffs

A very satisfactory file for freight tariffs is the vertical file, and one drawer will hold all of the tariffs required by the average shipper. If a two-drawer cabinet is provided, the shipping clerk will usually find other uses for the extra drawer.

Each railroad whose tariffs are on file should be assigned a folder, and the folders should be filed alphabetically under the names of the railroads, as shown in Fig. 1. All tariffs from one railroad should be filed in the folder assigned to that road, and arranged according to their numbers. All railroads number their tariffs and, in correspondence, refer to them by number. Reference to the tariffs will be facilitated, therefore, if those of each railroad are kept in numerical sequence.

Loose-leaf binders are sometimes used for filing tariffs, but not all tariffs are in proper shape for punching to fit the binder. Another

The Index. Since the tariff folders are filed in alphabetical sequence, no index is required to locate the tariffs of a given road, but a cross-index to locate all tariffs that apply to a given point, is a necessity. This index should be in card form, a card being used for each town to which the house ships, or is likely to ship, its products.

[illegible]

Fig. 2. Cross-Index to Tariff File

A very satisfactory form of card for this cross-index is shown in Fig. 2, which also shows the manner of filing. At the head of the card is the name of the town, and the name of the railroad on which it is located. Below the heading, the first column shows the names of all railroads issuing tariffs to the town in question, whether or not the town is located on the road. Following this are columns for the number of the tariff and for either commodity or class rates. These cards are filed in the same manner as the tariff folders—alphabetically by names of the railroads. A guide card is provided for each road and all cards representing towns on that road are filed in alphabetical order behind the guide card.

Suppose a rate is wanted from a point on the Delaware, Lackawana & Western, to a point on the Burlington. Reference to the Burlington tariffs does not give the rate, for the reason that the Burlington does not issue tariffs from points on the D. L. & W., but reference to the card shows that four roads issue tariffs from Buffalo to Burlington points, one of them being a commodity tariff. Reference to the commodity tariff shows that the special rate applies from

[illegible]

Fig. 3. Card for Class Rates

a point in Ohio to Chicago, a connecting point with the Burlington. By proper routing, this special rate can be taken advantage of, class rates applying the balance of the distance. Without the index, it would be necessary to look through several folders, with the possibility that the special tariff might be overlooked.

Condensed Rate File. A condensed rate file covering a definite territory will prove a convenience to most shippers. The trade of most houses is confined to a certain definite and rather limited territory. A manufacturer may make an occasional shipment to a point outside of his regular territory, but, as a rule, his shipments will be confined within certain limits. This is even more true of the jobber and the wholesaler.

If a special rate file, covering the particular territory in which the shipper's trade lies, is prepared, it will be found convenient for reference, and will save consulting the tariff files whenever a rate is

wanted. Such a file can be arranged on cards, or in a small loose-leaf book. One card or sheet should be used for each town, the name of the town being written at the head of the card.

The card should show the rates for all classes from the shipping point to the destination, as well as the route. It may be necessary to record rates from more than one shipping point. A manufacturer may have two or more shipping points, and it is important to know

Article			
HOW PACKED	CLASS	CLASSIFICATION	REMARKS

Fig. 4. Card Index for Classifications

from which points he can secure the most favorable rates. It is also advisable to include the shipping points of the chief competitors, that they may be given due consideration in meeting competition.

Fig. 3 shows the form of card for this rate file. The cards should be filed alphabetically, and it is well to include cards for some of the principal towns outside of, but convenient to, the regular territory. The rates for the different classes, rather than on specific articles, are given for the reason that the classification is more likely to change than the rate. If the rate on a certain article is given, and the classification of that article is given, should the classification of that article be changed, it would be necessary to rewrite the entire index. It is much less difficult to change the record of the classification of one article than to revise all of the rates.

Classification Index. For convenient reference, the shipping clerk should prepare an index showing the classification of all articles

that he is obliged to ship. This classification index should be on cards or in loose leaf, whichever is used for the rate file. One sheet is used for each article, the name of the article being written at the top.

The record should show how the article is packed, the class, and the classification in which it is found. As has been stated, more than one class may apply to a given article, depending on the manner

Town					
ARTICLE	HOW PACKED	FROM	RATE	TARIFF NO.	R. R.

Fig. 5. Card for Commodity Rates

of packing; an article may take the first-class rate if boxed, or double first-class if crated. In such cases, both classes with the manner of packing should be shown.

These classification sheets should be filed alphabetically in the file used for the rate cards, and they should be printed on stock of a different color. Most shippers will need but a few of these sheets as the number of articles shipped by one house is small, as a rule. If a large number of articles is shipped, the classification index is of even greater importance. A suitable form for this index is shown in Fig. 4.

Commodity-Rate File. When any part of the goods shipped are subject to commodity rates, a file of commodity rates is fully as important as class rates. A commodity-rate file is arranged on similar lines to the file of class rates. A card or sheet is used for each town to which commodity rates apply, and the cards are filed alphabetically by names of towns. These cards can be filed with the class rates, but a distinctive color should be used.

The record should give the names of the articles taking commodity rates, manner of packing, the point from which the rate applies, the rate, the number of the tariff, and the name of the issuing railroad. On the line below the name of the town appears the caption, *see also*. This is for the name of some other point to which a commodity rate applies. Boone, Iowa, for instance, may not be a commodity point, though a special rate from Chicago to Clinton is in effect. The Boone card would refer to Clinton, and the card for that town would show the rate. Fig. 5 shows a form for commodity rates.

To compile such a record of rates as has been described, requires an initial expenditure of much labor, but is a profitable investment. When once compiled, changes can be recorded with little trouble. These files will always be valuable for reference, not alone to the shipping clerk but to the sales manager and the purchasing agent as well.

A comprehensive knowledge of classifications and rates will prove valuable not only to the shipper, but to the receiver of freight. It will save any merchant many dollars in freight charges on goods purchased f. o. b. point of shipment. The shipper may not pack his goods in a manner to secure the lowest rate, or he may not give the proper description in the shipping bill. If his attention is called to the matter by a customer, he probably will make the necessary changes in his methods.

Even the proprietor of a small retail business will find a study of this subject a paying investment. The writer has knowledge of a case in which the owner of a general store saved some \$165.00 in one year by carefully checking every freight bill received, making claims for overcharges, and watching the packing and routing of his goods. Surely that amount would be worth saving, even to a house transacting a much larger volume of business.

Routing Shipments. One of the most important duties of the shipping clerk is the proper routing of his shipments. Like classifications and rates, the subject requires careful study. In too many cases this subject receives little attention, but by exercising care in routing shipments, the shipping clerk can be of material assistance to the sales department, and, incidentally, to the customers of his house.

Routing frequently affects the rate. It might appear logical to suppose that the rate between two given points would be the same,

regardless of the route; but this is not the case. Of two routes to a given point, one may be longer than the other. If shipping and destination points happen to be in different states, the provision of the Interstate Commerce Act which forbids a higher rate for a short haul than for a long haul comes into play. Similar provisions applying to local shipments, are found in the laws of certain states. In Iowa, for instance, such a provision covers the transportation of passengers as well as freight. One railroad is not permitted to meet the competition of another having a shorter route between two points, but must base its rate on the mileage. All of which goes to show the necessity of considering the length of the haul in routing shipments.

The above conditions apply especially to shipments taking class rates, but when goods which take commodity rates are to be shipped, the question of routing is of even greater importance. It has been shown that a commodity rate may be in effect between two points on one road, or two or more roads may have issued a joint tariff which can be taken advantage of. The question of commodity rates, therefore, has a most important bearing on the routing of shipments.

Another factor that has a bearing on the routing is *basing points*, which necessitates a knowledge of the points on which rates are based. In the territories governed by the different classifications, certain common points are used for basing rates. On shipments from the central states to southern territory, rates are based on Ohio River points, while, to western territory, they are, in many cases, based on Missouri River points. Class rates from Chicago to all Missouri River points are, as a rule, the same over all roads, but, to points beyond the Missouri River, rates may vary from the different basing points; that is, the rate from Omaha to a western point may be less than from Kansas City, though the rate to these basing points is the same.

The alert shipping clerk will learn the basing points in the territory to which he is shipping goods—which he can do by consulting local freight officials—and will then secure tariffs from these basing points to the towns he wishes to reach. This information he will incorporate in his rate files.

Not least of the factors which should be considered in routing shipments, is the accommodation of the customer. It is frequently the case, that of two roads entering a town, the freight house of one

is more conveniently located for the shipper. Rates being equal, shipments should be routed over the road from which the customer's cartage charges are the lowest. Or the customer may have a side-track to his warehouse from one road, which makes no switching charge, while on every car shipped over another road a switching charge must be paid. This charge may offset an advantage in rates. It always pays to accommodate the customer. When the wishes of the customer are known, they should be granted, within reasonable limits, even though it involves extra expense.

FILLING ORDERS

In all large concerns the filling of orders—that is, the assembling of the goods—is done by the stock department. The subject is here discussed in connection with the shipping department for the reason that in many houses all orders are assembled under the direction of the shipping clerk; in others he is also the stock keeper or stores clerk.

This discussion refers more especially to the filling of orders in a jobbing house, or a manufacturing business which carries goods in stock. It does not refer to those manufacturing enterprises whose orders are for goods to be manufactured.

As a rule, all orders of a jobbing house should be filled the day they are received. If they cannot be filled complete, they should be filled as nearly as possible, and missing articles handled as explained later under the subject of *Back Orders*.

There is a great chance for time saving in most houses in filling orders. In many houses, too little consideration is given to the handling of goods in a manner that will save time in assembling orders. Lack of a logically planned system is responsible for much of the confused and confusing rush in the average shipping room, about the time that orders should be delivered to the transportation companies.

Here is a case in point which came under the observation of the writer. A certain jobbing house, handling drugs and druggists' sundries, occupied a five-story building. On each floor there was a stock room in charge of a stock man, who, with the aid of such helpers as he needed, kept the stock in proper shape, and assembled the goods required from his floor to fill orders.

In the drug business, the average order received from a retailer calls for a large number of articles—it is made up of small items.

This is especially true of orders brought in by the traveling salesmen. As a consequence, the larger part of the orders received by this house called for goods from practically every floor.

The custom was to send orders first to the floor farthest from the shipping room—that is, to the fifth floor. The stock man assembled the goods required from his floor, placed them in a basket with the order, and sent them down to the fourth floor. Each order went from floor to floor and finally reached the shipping room—perhaps being held an hour on one floor for a single article because of other orders ahead.

A result of this method was that, in the morning, the stock men on the upper floors were rushed, while those on the lower floors had no orders to fill, except those calling for goods from one floor only. In the afternoon, the conditions were reversed. Then the men on the upper floors had nothing to do but put their stocks in shape; those on the lower floors were busy filling orders. These conditions were not particularly objectionable so far as the stock men were concerned, as they were profitably employed, when not filling orders, in caring for their stocks; but in the shipping room great confusion resulted. Goods required to fill the day's orders did not begin to come into the shipping room until late in the day, and then they came with a rush. Hurried packing resulted in mistakes, caused disputes, and lost good customers.

To overcome the difficulty, a new plan which worked admirably was perfected. A chart was prepared, along the lines of the one shown in Fig. 6. On this chart, a section was set aside for each floor, and in the first column the classes of goods stored on each floor were listed. In the next two columns a few of the articles in each class—enough to serve as a guide—were listed, and the last column showed the floor *B*, meaning the basement. On this chart, the location of any class of goods could be seen at a glance, and in case of doubt about the class to which an article belonged, reference to the catalogue issued by the firm gave the desired information.

A copy of the chart was given to the order clerk, who entered all orders on a billing typewriter. In entering the order all articles were grouped by floors, starting at the fifth floor. Below the list of articles from each floor a space was left, the first entry for the next floor being on the second line below.

FLOOR CHART			
CLASS	ARTICLES	ARTICLES	FLOOR
			5 TH
			4 TH
			3 RD
			2 ND
			1 ST
			B

Fig. 6. Floor Chart for the Classification of Stock

Two copies of the order were provided for the use of the shipping clerk. When the orders reached his desk, he cut one copy into parts, as represented by the floors from which goods were to come. After entering the order number on the margin of each, he sent these sections to the stock men. Each man assembled the goods required from his floor and sent them, with his section of the order blank, directly to the shipping room. Here they were checked against the shipping clerk's copy of the order, and, as soon as all sections had been filled, the order was ready for packing. This resulted in distributing the work more evenly, and kept the goods coming regularly to the shipping room.

Another method of accomplishing the same result is to make as many copies of the order as there are floors, the complete order being sent to each stock man, who fills only his part. An advantage of dividing the order sheet, as explained, is that the stock men have no knowledge of the names of customers. This prevents a stock man from taking a list of the firm's customers to another house—an occurrence which is not entirely unknown.

Back Orders. Most concerns find it impossible to fill all orders completely; there are occasional shortages in every house. In such cases, it is the usual custom to fill all orders as nearly as possible, and forward the items that are short as soon as they are in stock, or with a later shipment.

The possibility of these items being overlooked must be provided against, and this is done by entering all items that are short on a new order. This is known as a *back order*. The back order should be made in duplicate and should be printed on stock of some distinctive color that will not be confused with the regular order blanks. For convenience in filing, it should also be made the same size as the regular orders.

If the number of back orders is very large, a separate series of order numbers is used, but most concerns do not have a sufficient number of such orders to make this necessary. The more usual custom is to give the back order the same number as the original of which it is a part.

Of the two copies of the back order, one goes to the shipping clerk, while the other is kept in the office. The office copy is used to follow up the shipment of the order. It is necessary for the

Shipments should be checked at every stage in the process of filling the order, by everyone who handles the goods. The stock man should check his part of the order as he assembles the goods,

[illegible]

Fig. 8. Order Blank with Column for Shipper's Check

and again before he forwards them to the shipping room, or the next floor. When received in the shipping room, the goods should be checked against the shipping clerk's order, and again just before they are packed.

It should be a positive rule that all goods shall be checked when they are placed in the cases. The items should be called off by the packer as he handles them, and checked on the order by a checker. This is a safer plan than calling off the items from the order, as it insures a positive check on the items actually packed—not what should have been packed. All order blanks should be

provided with a separate column in which to check the items actually shipped, and quantities should be entered in this column even if the order is shipped in full. The checking column on the order blank is shown in Fig. 8. If the system of entering orders includes a copy to be used as an invoice, the items are entered in this column after the shipping order is returned to the office.

The initials or numbers of both packer and checker should appear on the shipping order. It is also a good plan to place in each case a packer's slip, shown in Fig. 9, giving the number or initials of the packer and instructing the customer to return the slip with any claim for shortage or damaged goods. In some houses, it is the custom to make the packer's slip a duplicate of the order, listing all items packed, in which case, it makes a convenient receiving slip for the customer.

While not offering positive insurance against mistakes, a thorough checking system will reduce errors in packing to a minimum, and will most certainly

This Case was Packed by -

*In case of Claim for Shortage
or Damaged goods, or if goods
are Improperly packed, this slip
must be Returned.*

AMERICAN MERCANTILE CO.

Fig. 9. Packer's Slip

pay for the labor involved. In large houses shipping a large number of packages over several different railroads, a further complication arises through the liability of deliveries being made to the wrong freight house. Where several hundred shipments per day are made, it is not uncommon for a teamster to leave a package at the wrong road, finding himself short on his deliveries at another road; or the mistake may be made in loading the drays.

One well-known mail-order house has overcome the difficulty in a simple manner. This house is shipping several hundred packages a day by freight, over eight railroads. The basis of their shipping system is a color scheme, each railroad being designated by a different color—that is, the New York Central is represented by green, the Erie by blue, etc.

The shipping floor is divided into sections, one for each railroad, and one for each express company. The low partitions that

separate the sections are painted in the colors representing the railroads, and over each is a sign bearing the name of the road, also printed in the corresponding color. All packages are taken directly from the packing room to the sections of the shipping floor representing the roads over which they are to be shipped.

In all blanks used in shipping, the same color scheme is carried out. This includes shipping orders, packing orders, invoices, shipping receipts, and labels. All orders are properly routed before they are distributed to the billing machine operators for entry. Each

E R I E	FROM	
	AMERICAN MERCANTILE CO.	
	CHICAGO	
	For _____	No. _____
Via _____	Date _____	
<p><i>Freight Agents: In case of refusal, damage, or astray, notify us direct and disposal orders will be given promptly.</i></p>		

Fig. 10. Routing Package Labels

operator enters orders for certain railroads—from one to three, depending on the distribution of the trade—and is supplied with blanks of proper color for those roads only. Every order is then entered on blanks of the color representing the railroad over which the shipment is routed.

In Fig. 10 is shown a label which represents this color scheme. Across the end of the label is a solid block of color, with the name of the road in an open letter. All printing on the label is also of the same color. If the order is properly routed and entered, there is very little chance for shipments to go astray. On every blank and on the package itself, the color of the road is a prominent feature, and since all blanks are written at the same time, they must correspond. Should a package be placed in the wrong section, it is practically certain that the error will be discovered when the goods are loaded on the dray.

EXPORT SHIPPING

Export shipping is a subject about which the average American house knows but little, and herein appears to lie the cause of the loss of much foreign trade. This is especially true of trade with other than English-speaking countries. But the real fault lies farther back than in the shipping department.

The trouble starts in the sales department. Export business is undertaken without special preparation, and an attempt is made to apply the methods used in handling domestic trade. Special instructions in regard to packing, for instance, are ignored because the American thinks he knows more than his customer in a foreign land.

Before export business is even attempted, the sales department should become thoroughly familiar with conditions in the country with which it wishes to do business. Some man in the department should study the customs regulations, the descriptions necessary, the kind of packing needed, and the size of package best adapted to the country. Above all, he must study the desires of the trade, and conform to them, if he expects to make and hold customers.

Special importance is attached to the question of packing and describing the goods. No matter how unreasonable the request of the customer or the foreign salesman may seem, it should be complied with, for it is made for some good reason. A request of a merchant in Omaha, ordering dry goods from Chicago, that goods ordinarily packed in a large case be packed in small oblong boxes, might very properly be ignored; but not so if the customer is located in a South American republic. There, if the goods are to go to the interior, they must be transported over the mountains on the backs of pack mules.

Besides making the packages of suitable size, goods for export must be packed to withstand hard usage, and must be well protected against the elements. Goods must be fully and accurately described in order that they may pass the custom house. The dimensions of each package must be shown on the shipping bills, for freight rates are based on the space occupied in the hold of the ship, rather than on weight.

In a recent address on trade conditions in the Latin-American countries, Wm. Harley Porter, Deputy Captain of the Port of Cienfuegos, during the occupation of Cuba by the United States govern-

ment, made some very pertinent suggestions on these questions, some of which are published by permission—as follows:

To secure South American trade, we must first train salesmen. They must make an exhaustive study of the different South American tariffs and at least know Spanish. They must be willing to accept instructions as to shipping, and be powerful enough to insist that they be carried out literally. And it would be a good thing for them to take a kindergarten course in carpentry and blacksmithing, so that they would not continue the stupid, expensive blunders of American houses in the packing of goods.

I don't know how to drive that last statement home hard enough. Our consuls plead with our exporters, and our Government distributes volumes freely on the subject, yet there is no apparent improvement.

I confess that until I had some first-hand experience, I supposed that the packing evil was a convenient sort of filler, with which Consuls padded their reports for want of better material.

In order to fit out the custom house of Cienfuegos, Cuba, with new office furniture, we placed an order amounting to nearly one thousand dollars with a Chicago house that brazenly advertised that it made a specialty of export business. Their booklet was encouraging, and the prices really low. So we ordered roll-top and flat-top desks, cashier's desks, office chairs, tables and card cabinets, and then worried, for fear that the goods would not arrive before the end of the fiscal year, then rapidly approaching, in which event, our furniture appropriation would revert to the island treasury.

Six weeks from the day the order reached Chicago, the goods left New York—time enough to have had them come from Hawaii. With the goods came a single invoice. The vouchers in triplicate, which must be filled properly before the account can be paid by a governmental department, had been thrown aside as of no use. To protect the exporter, a voucher was drawn, for the ship reached port on June 30, the last day of the fiscal year. Several dollars were wasted in cable messages to expedite the return of new invoices, and the goods were unpacked.

Not one piece of furniture, save a few chairs, was found whole. No American, in the States, would have accepted the goods. We had paid for them. A letter of remonstrance brought back a churlish answer, written in a cocky American spirit of superiority, to the effect that possibly some one outside could tell that house something about packing their own goods, but they would be greatly surprised to meet such a person.

The trouble lay in the thinness of the packing cases. Goods are loaded into a ship by casting a rope sling about their middle, by which they are hoisted up and let down, often with a run, into the hold. Our desks, without sufficient outer protection and not being built on the principle of a truss bridge, naturally collapsed. The cases were none too good for a railway journey, and were certain to be damaged at any Central or South American port because, in nearly every case, unloading is done from the ship to a lighter, and from the lighter, by main strength and awkwardness, to a wharf.

I cannot recall one instance in which American houses carried out instructions literally. I believe that there is a great future for an American exporter who will let the man on the ground do his own thinking, and take it for granted that he knows what he wants and how he wants it. The exasperation of a man who is weeks or months away from the markets, and who finds that substitution has been practiced, or his goods so packed that destruction was plainly invited, cannot be adequately described by a man on my income.

We bought a typewriter in New York, one time, for two reasons: We could get the liberal discount allowed the government if we bought direct from the maker, and we could evade a 25% duty if we received it through our custom house and not through another. Also there was a line of steamers from New York to our wharf.

Some five weeks after placing the order, we were notified by an express company in Havana that it had accepted for our account a typewriter, and that when the duty, plus accrued express and forwarding charges, amounting to \$45.03, were paid, it would be dispatched in our direction.

We were out \$40.03 because some fool shipping clerk had insisted on trying to do our heavy thinking. We had given him the name of the steamer by which the machine was to be shipped, but he had discovered, in some way, that steamships will not make a bill for less than a metric ton. That, he doubtless learned, would cost us \$5.00. The package only weighed about 30 lbs., so he started it off by express. His brain did not carry far enough for him to learn that only one American express company crossed the Florida Strait and naturally chance took it to another company. Two changes were made in express companies before the box reached the coast and the package sauntered about in our beautiful Southland for more than a month before it landed in Havana.

Had any Spanish merchant been subjected to the invariable annoyance which fell to our lot when we endeavored to patronize American houses, he would have given up in despair and remembered the adage of the burnt child, forever.

And, unfortunately, the carelessness of American shippers often costs the foreign merchants good, hard dollars. Tariffs in Latin-American republics are fearfully and wonderfully made, and there is nothing that a pin-headed government employe enjoys more than inflicting a fine for a slip in complying with a little red tape.

Here is a case in point. A large house in Mexico City bought a carload of chairs over here, and with the order sent the shipping forms prescribed by the Mexican government. A very explicit letter was sent also, saying that consular invoices would be provided by their custom house broker in Laredo, who would receive the goods at the border, but that the shipping forms must be filled out, each package numbered with a serial number on the forms. Full description involved, of course, a statement as to the kind of wood used, so that the duty might be easily adjusted.

The goods, however, were simply consigned as so many bundles of chairs, weight so much. The shipping lists were ignored. The in-

nocent receiver of those goods was fined both because they had not been properly described and because the weight was grossly understated. It cost the Mexican house \$800 and when the American was asked to settle the charges caused by carelessness, or pig-headedness, he merely answered that he was not going to settle any bills with the Mexican government.

The Mexican firm settled—it had to—and posted every importer in the republic in the matter, so that not only will that American house not sell any more chairs in Mexico, but Americans generally have been given another black eye.

There is a good reason for careful custom regulations, and the exporter should know that they are partly for his protection. For instance, they usually require that a certain number, generally ten per cent, of all packages shall be opened and compared with the shipping list. If these packages, chosen at random, are correct, the consignment is delivered. But if any variation is found, fraud is assumed, and every package is thoroughly examined, usually with more or less damage.

It is customary for English and German firms, in the packing of small articles, to use different colored pasteboard boxes, which are often decorated with pictures indicating the contents. For instance, in a large packing case containing a stock of gentlemen's furnishings, all collars will be in boxes of one color, socks in another, cravats in another, etc. The large case is lined with tin, by the way, and after packing, the tin joints are soldered around the top. Here is the English system: First, the small boxes, individualized as much as possible; then heavy wrapping paper, then a tin lining inside of an outer wooden casing, the latter being well made and reinforced with iron straps. Last of all, directions and addresses are stenciled in large, clear block letters. The Germans often use oiled paper between the tin and the inner packages, so that even if the tin is punctured, the oiled paper will resist the sea air, which invariably injures delicate fabrics.

The American idea seems to be to put as much as possible in a large, thin box or a poorly bound bale. The European, whose agents study conditions on the ground, knows that much interior transportation in Latin America is packed by pack mule, and therefore uses medium-sized oblong boxes, two of which make a good load.

I cannot emphasize too strongly the necessity for careful description of goods to pass them through a custom house with the least inconvenience. Mixed consignments must pay the highest duty assessed against anything found in a lump or poorly described quantity. If you deal in bolts, for instance, you may not merely say *1,000, 3×2× $\frac{3}{8}$ bolts*, but you should say whether they are cotton, linen, or woollen. They have to know, before they can assess duty.

Instead of a ringing peroration about American pluck, progressiveness, and other non-essentials, let me give you some shipping rules, if you are going to have a try for South American trade.

Secure shipping list forms beforehand and find out if consular invoices are needed.

Pack your goods in small packages, for you will pay freight on metric tons and they are based on cubic measure and not on weight.

Pack well, for tons of stuff will probably lie on your cases.

Give each package a serial number and describe it by that number, on the shipping forms.

If your goods can be damaged by sea water, use tin-lined cases.

Your invoices should show not only number, measurement, and exact contents of each package, but their gross, tare, and net weight, for in many cases the container must pay the same duty as the contents.

Be sure that your forwarding agent is reliable, for the law allows him many charging privileges if you are careless in providing for contingencies.

Contract, if you can, for through transportation and get from the transportation companies the requisite export manifests to accompany shipment.

Make triplicate invoices, one to accompany the goods and two to be mailed to the consignee. One of these will be turned over to the custom officials, so in case the invoice sent with the goods fails to come through, and that often happens, the triplicate can be accepted. Without an invoice your goods cannot leave the ship, and I know of cases where cargoes have been held awaiting invoices for eight weeks.

And, in conclusion, remember that sentiment is not the foundation for foreign trade. If we sell abroad we must do so on merit and by foreign systems—not our own.

FREIGHT CLAIMS

Freight claims are an ever present source of annoyance. Every shipper, and practically every receiver, of freight finds it necessary to make claims against the railroads for freight overcharges, shortages, and damages to goods in transit. Some houses find occasion to make but one or two claims a year; others constantly have several claims on file, aggregating a large number each year, but no matter what the number, they must be given proper attention.

Handling freight claims is not one of the usual duties of the shipping clerk, nevertheless, it is a proper topic for discussion in connection with the subject of shipping. The traffic manager, when one is employed, handles the freight claims; otherwise the details are handled by some other minor official—as the cashier or the purchasing agent.

The adjustment of claims involves, usually, a large volume of correspondence, and requires a man of tact. He must possess patience and persistence to a marked degree. Diplomacy of a high order is necessary in his correspondence, and promptness is an important factor. Threats have little effect, other than to delay adjustment of the claim.

Before a claim is presented, all information pertaining to the case in possession of the claimant must be assembled, and all facts should be incorporated in the papers filed. A bill should be made against the railroad for the amount of the claim, and to this should be attached the freight receipt or other voucher. These papers should be accompanied by a letter giving a plain statement of the basis of the claim; if for an overcharge, the number of the tariff and the classification on which it is based should be cited. The claim papers should be as complete as it is possible to make them, presenting all facts having a possible bearing, otherwise they will be returned by the claim agent of the railroad for further information. Some of the questions asked by the claim agent may seem trivial to the claimant, but the answers are necessary to him in completing the files of his office. When claim papers are returned through the local freight office, the information asked should be given and the papers returned at once.

Claimants become very impatient over delays in the adjustment of their claims, forgetting that where they handle perhaps a dozen claims a year, the railroad claim agent must handle thousands, involving amounts ranging from a few cents to many hundreds of dollars. They also overlook the fact that a shipment has passed over several roads, and that before the claim can be adjusted, it must be ascertained on what road the damage was sustained. The different roads involved must adjust the claim between themselves, before they can tell where the money with which to pay it is coming from. The papers must pass through the hands of agents at all junction and transfer points, and the claim departments of all roads involved, before the claimant can expect a reply.

On the other hand, it is not good business to rely solely on the railroad. Claim papers sometimes repose indefinitely in the desk of some local freight agent, until brought to light by a persistent follow-up; occasionally the papers are lost. A follow-up of freight claims is, therefore, a necessity. The shipper who is most persistent in following up his claims, is usually the beneficiary of the most prompt service.

Railroads number all claims as received, and invariably refer to them by number. It is an excellent plan, therefore, for the shipper to adopt a numerical system for the purpose of identification. It is

quite important that all correspondence relating to a claim be kept together, and this is best done by using a folder for each claim. The number of claims is so small that it is not necessary to use an entire drawer for claims; they can be accommodated in the front of a drawer used for regular correspondence.

The outside of the folder should provide for the name and address of the consignor or consignee, as the case may be, name of

Consignor or
Consignee _____ Claim No. _____

Shipping Point _____ R. R. No. _____

Railroad _____

Date Filed _____ Amount \$ _____

Fig. 11. Folder for Freight Claims

the railroad on which claim is made, the shipper's claim number, and the railroad's claim number, as shown in Fig. 11. In this folder, copies of the bill and of all letters to the railroad company should be filed. The folders are filed numerically, in the order of the shipper's claim numbers.

To follow up the claim, and to provide an index to the file of claim folders, a card, similar in form to the one shown in Fig. 12, should be used. This card provides for a complete history of the claim. At the head of the card is shown the name of the consignor

or the consignee, shipping point, shipper's and railroad's claim numbers, dates of shipment, receipt, and filing of claim, the railroad on which claim is made, and the name of the claim agent. This is followed by a brief statement of the nature and amount of the claim. The two bottom lines provide for a record of the payment or rejection of the claim. All of the information most likely to be needed is found by turning to this card, without the necessity of consulting the correspondence in the claim files.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Consignor or Consignee																Claim No.															
Shipping Point																R.R. Claim No.															
Date Shipment										Date Received										Date Filed											
Railroad																Claim Agent															
NATURE OF CLAIM																								AMOUNT							
Date Acknowledged										Date Allowed										Amt Paid \$											
Date Rejected																															
OVER																															

Fig. 12. Card for Follow-Up of Claims

The manner of filing the card depends somewhat on circumstances. The usual plan is to file alphabetically, under the name of the consignor, first grouping by railroads. If goods are received and shipped over but one road, all of the cards would be filed in one index. But if more than one road is used, an index card would be used for each road, and the cards arranged alphabetically back of the index cards of the roads involved. This arrangement brings the cards of all claims against one road together, which is a logical plan, since it is the railroad with whom the claimant is dealing.

Across the top of the card is a series of numbers, from 1 to 31. These represent the days of the month, and are used in connection with the follow-up of the claim. Metal tabs are placed over the dates

287

Date _____

6

○

2

Thus the claim account is a controlling account, the balance representing the total claims outstanding, and agreeing with the totals of the claims against the different roads as shown by the cards. Claim account represents a questionable asset, and should be so treated in the balance sheet, a liberal discount being made in the value represented by the account.

EXPRESS SHIPMENTS

Many business houses are selling classes of goods which are most successfully shipped by express. This is especially true of those houses that transact the larger part of their business by mail. The question of shipping by express is, in itself, quite simple, but there are numerous details connected with the handling of such orders which require close attention. While these details vary in different businesses, as a typical illustration the business of selling books by mail has been selected.

When an order is received, the first step is to check the source—whether from circularizing, a re-order, or periodical advertising, and if the latter, the name of the publication. This information should be entered on the original order.

Cash and charge orders should then be separated, and on the charge orders the next step is to investigate the credit and check the address, especially when no advance payment is made. The address is checked against any list that may have been used, or against city directories, when such are available. If the list used has proved reliable, it usually is safe to pass the order from one whose name appears therein. Or the occupation given in the directory may warrant the acceptance of the risk. If he is a customer, his manner of paying in the past is the best guide.

Should all of these sources of information fail, and if the customer gives no references, it is well to secure a report from some commercial or collection agency. It may be necessary to follow up the agency, but if a reliable agency, like Martindale, is unable to obtain information, it is best to refuse the order except on a cash basis.

The order having been accepted, it should be entered in an order register, giving the name of the purchaser, the address in detail, description of the article ordered, source of the order, and

express companies. A prepaid sheet is shown in Fig. 18. This is made in duplicate, one copy, signed by a representative of the express company, remaining with the shipper. The copy for the express company serves as a voucher for the collection of the charges.

The express shipping sheet and the orders, with labels attached, should be sent to the packing and shipping room, where the goods are packed and shipped. The order should then be returned to the office, and filed with the customer's orders in the correspondence files. This should be a formal acknowledgment, giving full information as to when and how shipped.

It will be seen from the above that orders of this class necessitate a number of details, each of which forms an important link in the complete chain

RETAIL DELIVERY SYSTEM

Not the least important problem in shipping is that of the retail store. While this problem is of special importance in a large city, it is one which must be met by the retailer in every community. Under present conditions, the retailer is obliged to deliver a large per cent of the goods that he sells, and the tendency is for this percentage to increase rather than decrease.

The shipping or delivery department is the busiest in the entire establishment; the details are so many that only with the most perfect system can the work be handled. The delivery system of one of the big stores is a revelation to most men; and when our purchase, which is but one of thousands made in an hour, is delivered at our door, five or ten miles away, two to five hours later, we marvel at the perfect working of an apparently complex machine. And yet, when we study it, we discover that the controlling factor of this vast system is its simplicity. Less confusion is found, and fewer mistakes are made, in the delivery department of the largest stores in the world than by the delivery boy of your corner grocer; and simple system—method—at every step from the sale to the final delivery is responsible.

While not really complicated, the system of a big store is built to care for many more details than are met with in the smaller store. Since a vast majority of retail establishments are in the latter class, this discussion is confined to the needs of a store of average size.

Average size is a relative term. A store of average size in one

community would be considered as a big store in another. In a large city, leading stores dealing in exclusive lines—such as clothing, shoes, or cloaks and suits—answer the description, and it is the needs of such a store that are discussed herein. A system adapted to the needs of a store of this class, can easily be expanded for a department store or modified for a smaller establishment.

Delivery Tag. A delivery system starts, not in the shipping room, but when the sale is made. The very first requisite is a correct

UNPACK AT ONCE TO AVOID CREASING.	
FROM MAURICE L. ROTHSCHILD & - Good Clothes and Nothing Else - S.W. CORNER JACKSON AND STATE, CHICAGO.	
Name _____	Date _____
Address _____	
Near what Street _____	Flat _____
Salesman _____	Inspector _____
Remarks: _____	
C. O. D. \$ _____	<u>WEST</u>

Fig. 19. Label with Colored Border to Indicate Routing

address, and the securing of the address rests with the sales person. Unless every necessary precaution to insure accuracy at this point is taken, the further provisions of the system are without avail.

The first step, then, is for the sales person to write the label or tag that is to be attached to the package. It should not be left for another to write the final delivery ticket; this should invariably be done by the sales person, who then becomes responsible for the address. In some small stores, the duplicate sales ticket is made to do service as a delivery ticket, but it is much the safer plan to use a separate tag or label for this purpose. The address on the duplicate

sales ticket is quite likely to be illegible, and to provide for all details needed for delivery necessitates a larger ticket than otherwise would be used.

One of the most practical schemes ever devised is to indicate the section of the city by the color, size, or shape of the delivery ticket. The city is first divided into sections, the commonly known sectional divisions being used—as *North* side, *South* side, etc. When the sale is made, the customer is asked in what section of the city he resides, and then an appropriate label is selected. All labels are the same in form, but printed a special color for each section. The label shown in Fig. 19 is distinguished by a solid border and bar of color, printed on white paper, all type being printed in black.

Every necessary detail should be provided for on the label. The one illustrated shows the date, the name and address, near what street, the flat number, the name of the salesman, initials of the inspector, and amount (if any) of the c. o. d. The caption, *near what street*, is of special importance in a large city for it assists greatly in routing deliveries. An address may be given as 457 E. 72nd St., but if it is known that this is near Baker Ave., it is much more quickly located by the driver.

This label is written by the sales person and sent with the goods to the packers. Here, it is pasted on the package—unless it is a c. o. d. package, in which case it is first initialed by an inspector. The same is true of charge sales.

Routing Deliveries. The delivery system proper begins with the routing of the deliveries, which is the first thing done after the goods reach the shipping room. Bins should be provided for the different sections of the city and if the business warrants, these sectional bins should be subdivided, the subdivisions representing routes. Separate bins should be provided for c. o. d. deliveries, and it is well to have a bin for special deliveries, such as those to suburban points, which usually are forwarded by express.

When the packages reach the shipping room, they are sorted into these bins. As an aid to sorting, the colored labels described prove their value. Since the color represents the section, packages can be sorted as rapidly as they can be handled. After they are sorted according to sections, the packages are again sorted into routes.

receipt for the goods. Whether or not it is either necessary or wise to attempt to secure the signature of the customer, is a disputed question, and probably depends on the class of goods delivered and the extent of the business. A jeweler who delivers a valuable piece of jewelry would be justified in demanding a receipt, but this would be unnecessary for a grocer. The shipping clerk in one department store gives it as his opinion that the signature is not necessary, and, for proof, points to a record of but two inexpensive packages lost in a year.

Call for Package

Mr. _____

Address _____

Near what Street _____ Flat _____

Instructions _____

Fig. 21. Delivery Boy's Call Tag

At the bottom of the delivery sheet, calls are listed. This refers to calls by the driver, where no deliveries are to be made. In a clothing or department store, it frequently is necessary to call for goods that have been delivered on approval, or on which alterations are to be made.

The delivery sheets are put up in book form in duplicate. The original is perforated so that it can be detached, while the duplicate remains in the book. A book is used for each wagon, and each driver signs for his deliveries in the space provided for that purpose at the head of the sheet. The driver then takes the delivery sheet, placing it in a spring-back binder, and turns it in on his return. It is well to keep these sheets on file in the shipping room for at least a month—when it is safe to destroy them.

When a call is to be made, a special tag is given to the driver to be attached to the package. This tag, which is shown in Fig. 21, gives the address, and any special instructions that may be necessary.

When the call is for a garment to be altered, the person taking the call usually ascertains what is to be done, and writes the instructions on the back of the tag. In case no instructions are given in advance, they are usually given when the call is made—in which case they are written on the tag by the driver. When the package reaches the shipping room, reference to the tag shows what is wanted, and the package can be forwarded, at once, to the proper department. Carrying out the color scheme, the call tag should be of a special color to distinguish it from the delivery tag.

C. O. D. Deliveries. Of special importance are c. o. d. deliveries. There must be a positive record which will make it possible to check every item at every stage, including all items collected.

Name _____	Name _____
Address _____	Address _____
C. O. D.	
No. _____ Amount \$ _____	No. _____
Salesman _____ Dept. _____	Amount \$ _____
· RECEIVED PAYMENT ·	
Date _____ By _____	Date _____
	Collected by _____

Fig. 22. Collect on Delivery Tag

The handling of a c. o. d. item begins with the sale, when the sales person, in addition to noting on the sales slip that the item is c. o. d., makes out a tag, as shown in Fig. 22. This tag, which should be of a special color, is made with a perforated stub, and on the stub the information on the tag itself is duplicated. The sales person fills in, on both the tag and the stub, the name and address of the customer, the amount to be collected, his own initials, the number of the department, and the date.

The goods and the duplicate sales ticket go to the packing room, while the original sales ticket and the tag go to the office, where they are taken charge of by the c. o. d. clerk. This clerk registers the sale on a c. o. d. register, stamps the number on the tag and stub,

In a store where the packages are wrapped in the department making the sale, the routine is changed to the extent of sending the package direct to the shipping room, with a plain address label. The package is held in the shipping room until the tag, sent direct from the office, is received.

[illegible]

Fig. 23. Special C. O. D. Delivery Book

When a driver makes a c. o. d. delivery, he gives the customer a receipt on the tag, Fig. 22, but retains the stub. On returning

The original sales ticket is placed in an envelope, stamped with the c. o. d. number and filed numerically by the c. o. d. clerk, who also keeps the register. In the system described, the tag receipt takes the place of the sales ticket; but in many stores it is considered best to send the sales ticket with the package.

When the shipping clerk receives the record sheet from the office, he checks the items against his delivery books and enters the route number and driver's number. As described, each driver's stubs and returned packages are first checked against his delivery sheet; all stubs are then checked against the record sheet, which makes a double check in the shipping room. If a package is refused it is returned either to the department or the general stockroom, and a receipt obtained on the back of the tag. The shipping clerk then returns the record sheet to the office, with the money collected and the tags representing refused packages.

Sales tickets and cash are turned over to the cashier, while tags and sales slips of refused packages are sent to the auditor. The auditor can check both the cash collected on c. o. d.'s and returns against the duplicate sales tickets in his possession.

Undelivered Goods. One of the annoyances met with in the delivery department of a large store is the difficulty in making deliveries because people are not at home. Unsuccessful calls are common, and while it is quite the general custom to leave packages with a neighbor, it is not always possible to do this, which means that the package must be returned to the store. And it frequently happens that this brings forth a vigorous complaint from the customer, who is positive that the delivery could have been made.

One merchant has found a simple solution of this difficulty, which could be adopted with profit by all merchants in large cities. Drivers are supplied with slips printed as shown in Fig. 25. When no one is found at home, one of these slips is filled out and left in the

Telephone Harrison 5621	
Date _____	
Mr. _____	
Time _____	Address _____
<i>We called to make delivery of package and found no one at home.</i>	
Per _____	
Pkg. left with	MAURICE L. ROTHSCHILD
_____	Specialists in good clothes and nothing else.
_____	S.W. COR. JACKSON & STATE

Fig. 25. Notice of Attempt to Deliver

mail box. It shows the date, time of day, name of driver, and name of person with whom the package has been left. The use of this slip eliminates complaints and proves a great convenience to the customer.

Date _____
Mr. _____
<p style="text-align: center;"><i>Dear Sir:- We are holding package addressed to you and which was returned.</i></p> <hr style="border: 0; border-top: 1px solid black; margin: 10px 0;"/> <p style="text-align: center;"><i>Kindly advice in regard to same so we can give it our immediate attention.</i></p> <p style="text-align: right;"><i>Yours truly,</i></p> <p style="text-align: right; margin-right: 50px;">MAURICE L. ROTHSCHILD</p>
<div style="display: flex; justify-content: space-between;"> Address Shipping Dept. Per _____ </div>

Fig. 26. Post-Card Notice of Attempted Delivery

When undelivered packages are returned to the store, and nothing is heard from the customer within 48 hours, a postal card notice, Fig. 26, is mailed to the customer. Frequently, failure to


<div style="text-align: center;"> <p>From</p> <p>MAURICE L. ROTHSCHILD</p> <p>S.W. Corner Jackson & State</p> </div> <div style="margin-top: 20px;">  <p>Mr. _____</p> <p>_____</p> <p>_____</p> </div>	<p>No. _____</p> <p><i>This package must be delivered at</i></p> <p>_____</p> <p>_____</p> <p>Before _____ O'clock</p> <p style="text-align: center;">TO-DAY</p> <p>Date _____</p>	<p>No. _____</p> <p><i>This package must be delivered at</i></p> <p>_____</p> <p>_____</p> <p>Before _____ O'clock</p> <p style="text-align: center;">TO-DAY</p> <p>Date _____</p>
------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Fig. 27. Special Delivery Tag

deliver is due to the wrong address, but even if the correct address is not found in the directories, the postal authorities usually succeed in locating the customer.

Special Deliveries. Every store, especially in large cities, finds it necessary to make special deliveries. The customer from out of town, or about to leave town, wants a package delivered before a certain hour; the delivery may be to a depot, hotel, office, or even a residence. These are the deliveries which cannot wait for the regular trip of the wagon, but are sent by a boy. The important thing, so far as the delivery department is concerned, is to get them out on time.

Fig. 27 shows a tag for special deliveries, used by a clothing house. The tag shows the name and address of the customer, with full particulars of the time and place of delivery. At the end is a perforated stub on which the delivery instructions are repeated. When the tag is attached to the package by the sales person, the stub is torn off and sent directly to the shipping room. The shipping clerk is then on the lookout for the package, and is expected to follow up the proper department, which in this business usually is the tailor shop.

SPECIAL DELIVERY TAG		
Inspt. Stamp		Time
<i>Messenger to Packing Room.</i>		
Name		Time
Packers Stamp		Time
<i>Messenger to Chute or S.R.</i>		
Name		Time
<i>Rec'd in S.R.</i>		
Name		Time
SHIPPING ROOM WILL DETACH TAG AND FILE.		

Fig. 28. Special Delivery Tag for Department Store

Another form of special delivery tag used by a department store is shown in Fig. 28. This tag gives more detailed information about each step taken, showing the names of all persons handling the package, and the time at which it is handled by each.

When the delivery system of a retail store is studied, it is found to be made up of simple methods, which are assembled to make a complete machine. A noticeable feature of the entire system is that the apparently insignificant details—the little things—are its most important parts; which is true of all systems.

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